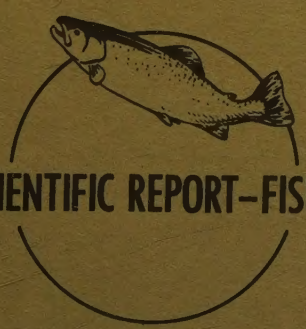
PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA— SOUTH ATLANTIC COAST OF THE UNITED STATES

Gill Cruise 2



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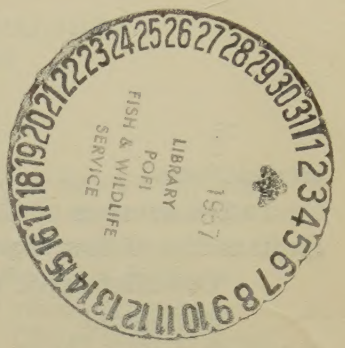
UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

United States Department of the Interior, Fred A. Seaton, Secretary
U. S. Fish and Wildlife Service



PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA SOUTH ATLANTIC COAST OF THE UNITED STATES THEODORE N. GILL CRUISE 2

By

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PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA SOUTH ATLANTIC COAST OF THE UNITED STATES M/V THEODORE N. GILL CRUISE 2

This is the second in a series of reports presenting basic data from cruises of the Theodore N. Gill in waters off the South Atlantic Coast of the United States.

Background of the investigations; objectives; procedures on station; and chemical, biological and oceanographic methods and procedures were presented in the report for cruise 1 (Anderson, Gehringer, and Cohen, 1956). The basic station plan is shown in figure 1.

NARRATIVE ACCOUNT OF CRUISE 2

The Theodore N. Gill departed from Brunswick, Georgia, on April 16, 1953, and proceeded to special station 5. Hourly bathythermograph observations were made while enroute, except when passing through the Gulf Stream and the Antilles Current when BT lowerings were made every half hour. Special station 5 was reached on April 17 and after occupying special stations 6 to 8, the vessel arrived at the standard station on April 19. Thirty-two hours were spent on standard station, during which time 10 Nansen-bottle casts were accomplished at intervals of about 2 hours --9 casts to 700 meters and 1 to 4,000 meters. Bathythermograph observations, Secchi-disc readings during daylight casts, routine meteorological observations, and special plankton tows for deep scattering layer studies were made in addition.

Observations on standard station were terminated on April 20, and after calling in Nassau, B.W.I., for medical care to a member of the personnel, the vessel proceeded to regular station 1, arriving on April 22. From this date to April 28 the Gill occupied all regular stations of the southern leg (1 through 34) and special station 9. The vessel returned to Brunswick on April 28 for supplies.

The Gill departed on May 4 from Brunswick on the northern leg of the cruise, and occupied all but 3 of regular stations 35 to 80, and special stations 1 through 4 during the period May 4-14. The vessel returned to Brunswick on May 15. Cruise track is given in figure 2.

Nansen casts were made on all regular and special stations (fig. 3). Bottom-sediment samples were obtained on a large number of the stations with the modified orange-peel dredge. A Phleger corer proved ineffective on the types of bottom encountered. Water samples were collected on each station for analysis of salinity, nitrate, carbohydrates, inorganic phosphate, total phosphorus, and proteins. Oxygen determinations were made aboard vessel. Bathythermograph and associated meteorological observations were taken on station and at hourly or half-hourly intervals between stations as conditions permitted. Oblique plankton tows were taken on each station with a half-meter silk net, and the continuous plankton sampler was operated over most of the cruise route. Feather jigs were trolled between stations, and bottom fishing was conducted on some shallow stations. Dip-netting was conducted both at night under searchlights and during the day (fig. 4).

Scientific personnel participating in the cruise included:

I. Southern Leg
U. S. Fish and Wildlife Service and Cooperators:

W.W. Anderson	Chief Scientist
F. T. Knapp	Biologist (Georgia Game & Fish Comm.)
G. F. Arata, Jr.	Biologist (Florida State Board of Conservation)
V. L. Strock	Administrative Assistant

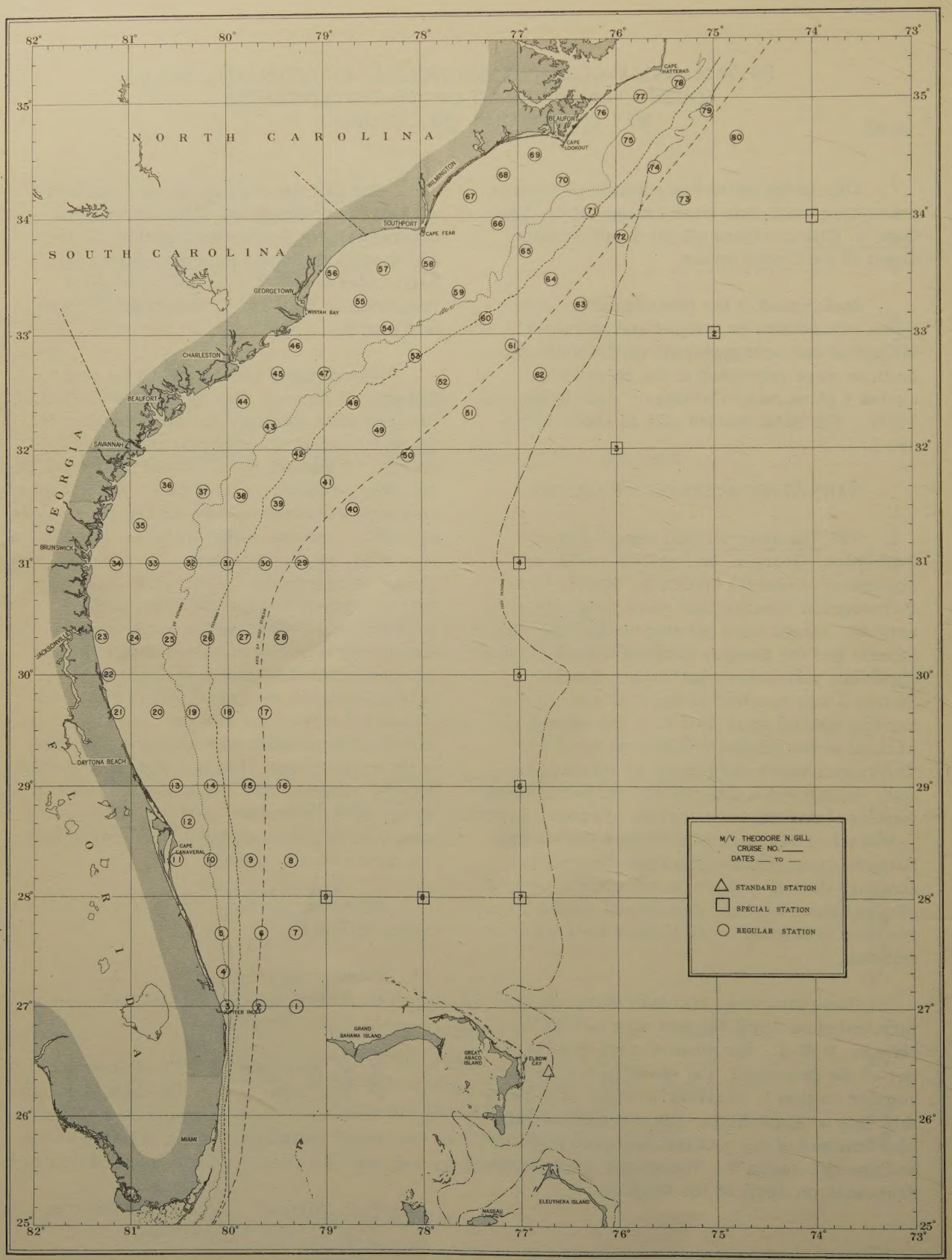

Figure 1.--Basic station plan.

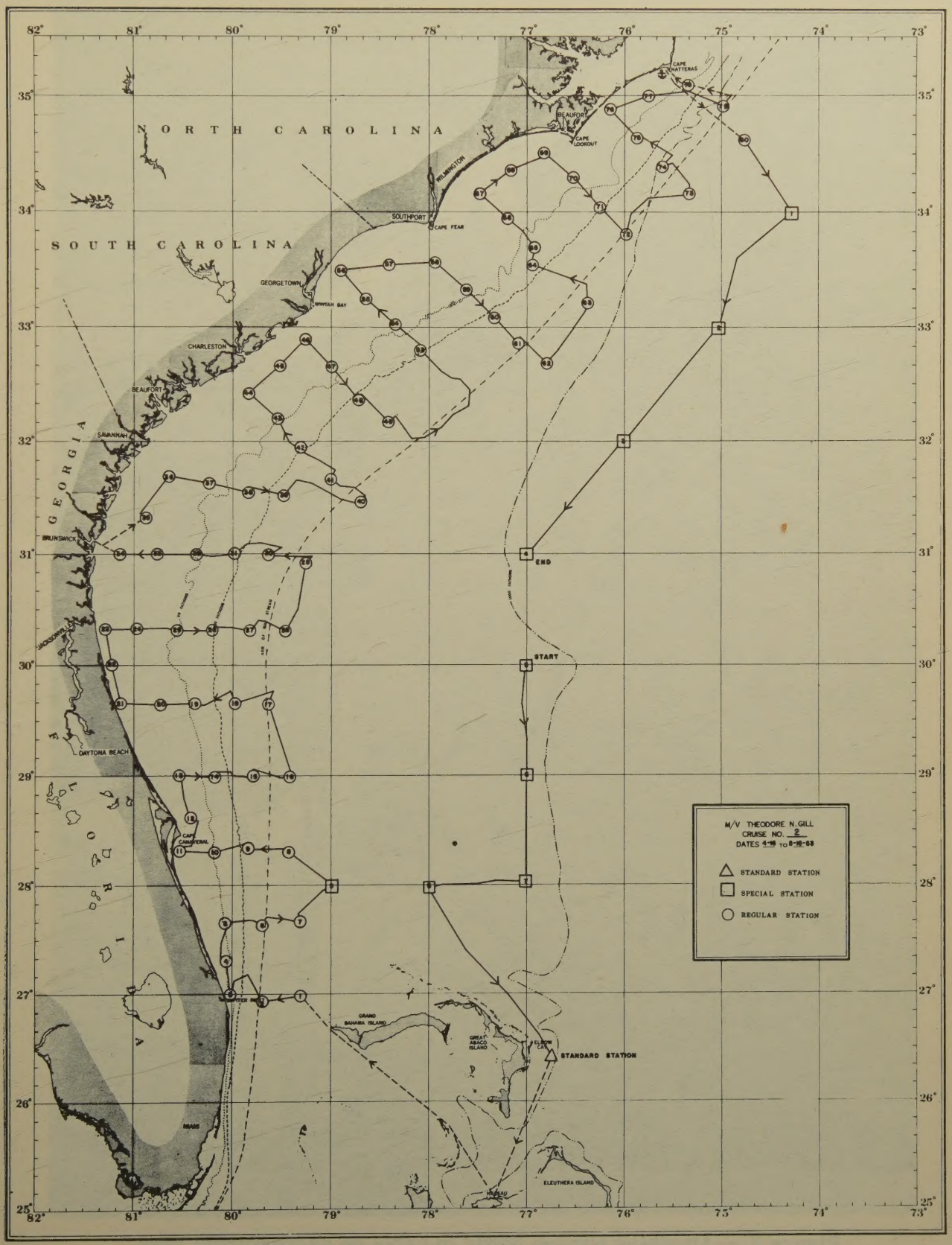

Figure 2.--Track chart.

Figure 3.--Attaching Nansen bottle to cable on hydrographic cast.

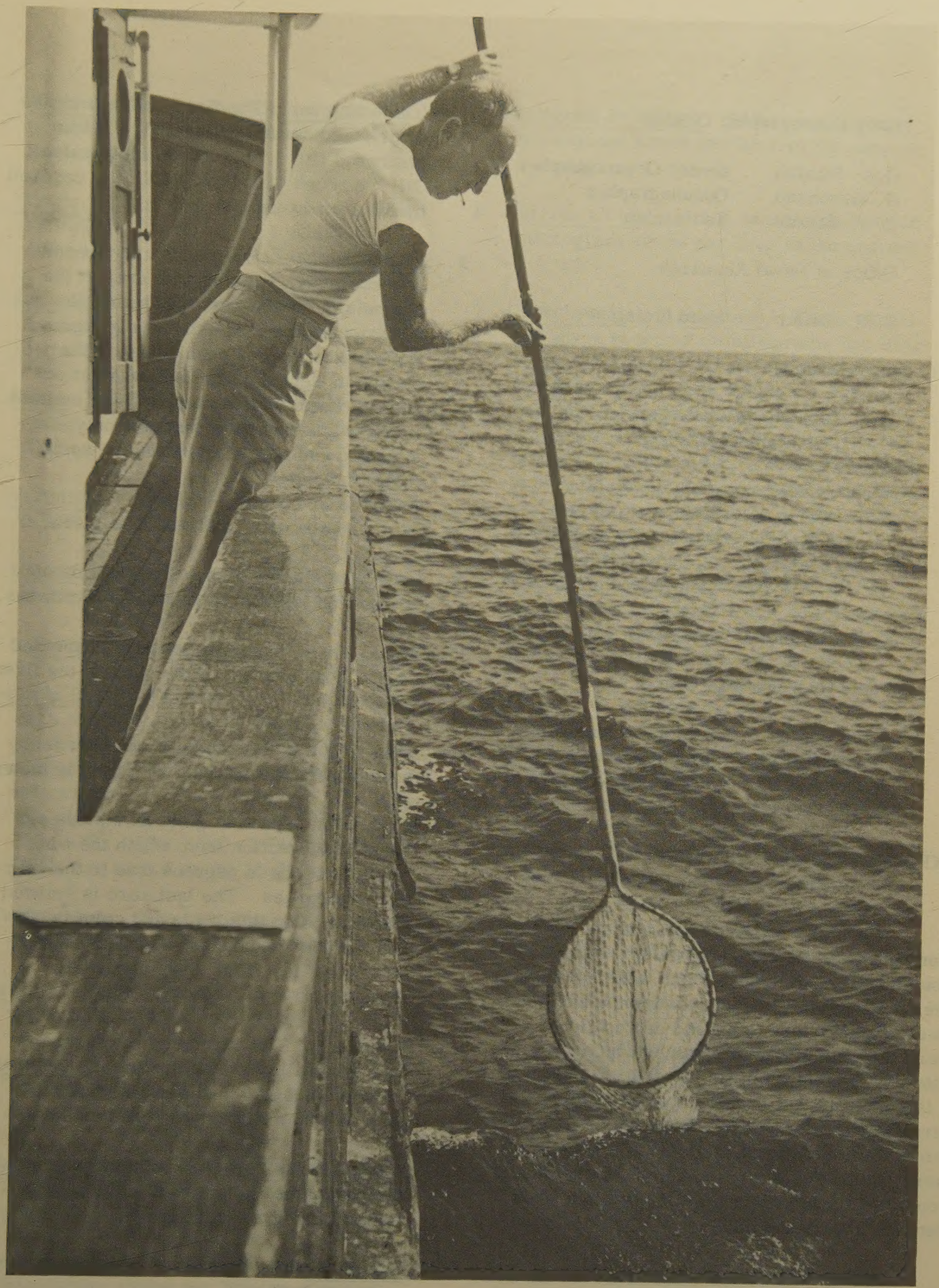

Figure 4.--Dip-netting for larval and juvenile fish.

Navy Hydrographic Office:

E.K. Stanton	Senior Oceanographer
G. Hammond	Oceanographer
C.W. Backus	Technician

Office of Naval Research:

S. R. Galler	Head Biologist

II. Northern Leg

U.S. Fish and Wildlife Service and Cooperators:

W.W.Anderson	Chief Scientist
F.T. Knapp	Biologist (Georgia Game & Fish Comm.)
G.F. Arata, Jr.	Biologist (Florida State Board of Conservation)
C.C. Bryant	Chemical Aid

Navy Hydrographic Office:

E.K.Stanton	Senior Oceanographer
G. Hammond	Oceanographer
E.G.Smithwick	Oceanographer
C.W. Backus	Technician

EXPLANATION OF DATA SHEETS AND TABLES
Oceanographic and Chemical

Each of the items appearing on the station data pages is explained below. All doubtful data are indicated and were not used in the construction of the curves from which the interpolated values (standard depth values) were derived. Observed values which were obviously false were omitted entirely. A dash in a table means that no value was available. Interpolations for standard depth values for temperature, salinity, sigma-t, and oxygen were IBM calculations; those for the chemical constituents were derived from straight lines between observed values.

The profiles of salinity, temperature, and density were prepared from these data, and appear as figures 5-20.

1. Cruise Number. The first cruise over the established station pattern (fig. 1) was numbered Gill 1, and subsequent cruises, Gill 2 through Gill 9 (only Gill 2 is covered by the present report).

2. Station Number. Stations are numbered consecutively, starting with one, at the beginning of each cruise. The station pattern and numbers as shown in figure 1 were maintained on each cruise. If a station or series of stations was not occupied, these station numbers are omitted. Regular stations have numbers only; standard and special stations are specifically indicated.

3. Date. Month, day, and year are given.

4. Latitude and Longitude. The position of the station is given in degrees and minutes.

5. Time. Given in Greenwich mean time and is that hour nearest to the start of the first cast.

6. Depth. Is the observed uncorrected sonic sounding for the station, recorded in meters.

7. Wind. Wind speed is given in meters per second. Direction from which the wind blows is coded in degrees true to the nearest ten degrees. The last zero is omitted. North is 36 on this scale and calm is 00. See table 1, "Compass Direction Conversion Table for Wind, Sea, and Swell Directions."

8. Barometer. The barometric pressure is coded in millibars, neglecting the 900 or 1,000. Thus 996 millibars is coded as 96 and 1008 millibars is coded as 08.

9. Air Temperature. Dry-bulb and wet-bulb temperatures are entered to the nearest tenth of a degree (centigrade).

10. Humidity. The percent of humidity is coded directly.

11. Weather. Weather is coded as indicated in table 2, "Numerical Weather Codes - Present Weather."

12. Clouds. Cloud type and amount are coded as indicated in table 3, "Cloud Type"; and table 4, "Cloud Amount."

13. Sea. Sea direction and amount are coded as indicated in table 5, "Sea Amount"; and table 1.

14. Swell. Swell directions and amount are coded as indicated in table 6, "Swell Amount"; and table 1.

15. Visibility. Visibility is coded as indicated in table 7, "Visibility."

16. Water Transparency. Given as meters to which a Secchi disc is visible.

Subsurface Observations

1. Sample Depth. Observed (actual) depth of each sample is given in meters. Interpolated values at standard depths are also given. The standard depths in meters are: 0, 10, 20, 30, 50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800, 1000, 1200, 1500, 2000, 2500, 3000, and thence every 1000 meters.

2. Temperature. The centigrade temperature is given in degrees and hundredths.

3. Salinity. Salinity is given in parts per thousand to two decimal places.

4. Sigma-t. To convert to density divide by 1000 and add 1. Thus, a sigma-t value of 22.35 converts to a density of 1.02235.

5. Dissolved Oxygen. These values are given in milliliters per liter to two decimal places.

6. Total Phosphorus. Values are given in microgram atoms per liter to the nearest 0.1 unit.

7. Inorganic Phosphate. Values are given in microgram atoms per liter to the nearest 0.1 unit.

8. Nitrate-nitrite. These values are given in microgram atoms per liter to the nearest 0.5 unit.

9. Carbohydrates (Arabinose). These values are given in terms of milligrams per liter to the nearest 0.1 unit. Collier et al. (1953) presented a technique for estimating certain elements of the organic materials in sea water which react to the test for carbohydrates. The carbohydrate values are given as arabinose equivalents, and are not necessarily the actual concentrations of carbohydrate substances.

10. Proteins (Tyrosine). These values are given to the nearest 0.1 unit as milligrams per liter of protein material in sea water, which reacts to the test for tyrosine.

Biological

1. Plankton volumes (half-meter silk net), table 8. The position given is that at beginning of the tow. The depth of the haul is given from 0 to the greatest depth reached. The volumes as given are "wet volumes" (procedures for determination were given under methods in report for cruise 1). Very few samples contained large organisms such as jellyfish (which were removed), so that the volumes represent smaller organisms.

2. Numbers of plankton organisms per cubic meter of water (half-meter net), table 9. The procedures for plankton tows, methods for sorting and counting, and calculations of numbers of organisms were described under methods in report for cruise 1. Counts are given for major groups as indicated.

3. Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), table 10. Description of this

sampler, its use, and methods of calculating numbers of organisms were given under methods in report for cruise 1. Counts are given by compartment for major groups as indicated.

4. Numbers and species of fish taken by trolling, table 11. The stage of gonad development is based on International Council classifications of gonad maturity for the herring (International Council Rapports et Proces-Verbaux des Reunions, Vol. LXXIV, pp. 117, March 1931). The scale is only a guide to general classifications and must be treated as such.

This scale follows:

Stage I. Virgin individuals. Very small sexual organs close under vertebral columm. Wine-coloured torpedo-shaped ovaries about 2-3 cm. long and 2-3 mm. thick. Eggs invisible to naked eye. Whitish or grayish brown knife-shaped testes 2-3 cm. long and 2-3 mm. broad.

Stage II. Maturing virgins or recovering spents. Ovaries somewhat longer than half the length of ventral cavity, about 1 cm. diameter. Eggs small but visible to naked eye. Milt whitish, somewhat bloodshot, same size as ovaries, but still thin and knife-shaped.

Stage III. Sexual organs more swollen, occupying about half of ventral cavity.

Stage IV. Ovaries and testes nearly filling 2/3 of ventral cavity. Eggs not transparent, milt whitish, swollen.

Stage V. Sexual organs filling ventral cavity. Ovaries with some large transparent eggs. Milt white, not yet running.

Stage VI. Roe and milt running (spawning).

Stage VII. Spents. Ovaries slack with residual eggs. Testes baggy, bloodshot. Doubtful cases are indicated by quoting two stages e.g. "St. I-II, St.VII-II," etc.

5. Numbers and species of fish taken by dip net, table 12. There is shown, by family, the genera and species taken. Numbers of specimens from each station are given in parentheses, followed by the approximate size or size range of standard length, in millimeters.

ACKNOWLEDGMENTS

Acknowledgment is made to the following agencies and individuals for contributions in securing and processing the material presented. To the Navy Hydrographic Office for their cooperation in planning and executing the field program and for processing the physical oceanographic data. To the Office of Naval Research and Dr. Sidney R. Galler in particular, for help in planning and executing the field program. To the Georgia Game and Fish Commission for their cooperation in the biological and chemical studies; through Frank T. Knapp, biologist and Joseph L. Moore, chemist. To the Florida State Board of Conservation (through the Marine Laboratory of the University of Miami) for their cooperation in the biological studies, through George F. Arata, Jr., biologist. To Dean F. Bumpus of the Woods Hole Oceanographic Institution for preparation of the salinity, temperature, and density profiles which appear as figures 5-20.

From our own staff special recognition is due Frederick H. Berry for identification of dip-net and stomach content material, and to Hugh M. Fields for plankton organism counts. We appreciate the assistance of other members of the staff who aided in one way or another: Charles P. Goodwin, Clyde C. Bryant, Herbert R. Gordy, Charlie B. Casper, and Elizabeth H. Swindell. Acknowledgment is also made of the excellent cooperation of crew members of the M/V Theodore N. Gill, and Captain Mauritz C. Fredricksen in particular.

REFERENCES

The following list is a supplement to that presented in the report for Cruise 1.

Anderson, William W.

Early development, spawning, growth and occurrence of the silver mullet (Mugil curema) along the South Atlantic coast of the United States, U. S. Dept. Int., Fish & Wildl. Serv., Fish Bull., in press.

Anderson, William W., Jack W. Gehringer, and Edward Cohen.

1956 Physical oceanographic, biological and chemical data, South Atlantic coast of the United States, M/V Theodore N. Gill Cruise 1. U.S. Dept. Int., Fish & Wildl. Serv., Spc. Sci. Rept.--Fish. No. 178, pp. 1-160, figs. 1-15.

Arata, George F., Jr.

1954. A contribution to the life history of the swordfish, Xiphias gladius Linnaeus, from the South Atlantic coast of the United States and the Gulf of Mexico. Bull. Mar. Sci. Gulf and Carib., 4(3): 183-243, figs. 1-19.

Arnov, Boris.

1952. A preliminary review of the Western North Atlantic fishes of the genus Haemulon. Bull. Mar. Sci. Gulf and Carib., 2(2): 414-437.

Bailey, Reeve M.

1951. The authorship of names proposed in Cuvier and Valenciennes' "Histoire naturelle des poissons." COPEIA, 1951(3): 249-251.

Boden, Brian P.

1951. The egg and larval stages of Nyctiphanes simplex, a euphausiid crustacean from California. Proc. Zool. Soc. London, 121 (3): 515-527, illus.

Breder, C. M., Jr., and Eugenie Clark.

1947. A contribution to the visceral anatomy, development, and relationships of the plectognathi. Bull. Amer. Mus. Nat. Hist., 88(Art. 5): 291-319, figs. 1-8, pls. 11-14.

Clark, Eugenie.

1949. Notes on some Hawaiian plectogmath fishes, including a key to the species. Amer. Mus. Novitates, No. 1397, pp. 1-22, figs. 1-9.

1953. Notes on the behavior and morphology of some West Indian plectogmath fishes. Zoologica, 35(Pt. 3): 159-168, figs. 1-7, pls. I-II.

Clark, Eugenie and H.A.F. Gohar.
1953. The fishes of the Red Sea: Order Plectognathi. Cairo Univ. Press, Pub. Mar. Biol. Sta. Al Ghardaqa, No. 8, pp. 1-80, figs. 1-22, pls. I-IV, maps 1-3.

Fraser-Brunner, A.
1935. Notes on the plectognath fishes.--I. A synopsis of the genera of the family Balistidae. Ann. Mag. Nat. Hist., Ser. 10, 15: 658-663, 1 text-fig.

1940. Notes on the plectognathi fishes.III. On Monacanthus setifer Bennett and related species, with a key to the genus Stephanolepis and descriptions of four new species. Ann. Mag. Nat. Hist., Ser. 11, 5: 518-535, figs. 1-7.

1941. Notes on the plectognath fishes.--VI. A synopsis of the genera of the family Aluteridae, and descriptions of seven new species. Ann. Mag. Nat. Hist., Ser. 11, 8: 176-199, figs. 1-9.

1943. Notes on the plectognath fishes.--VIII. The classification of the suborder Tetraodontoidea, with a synopsis of the genera. Ann. Mag. Nat. Hist., Ser. 11, 10: 1-18, figs. 1-4.

Ginsburg, Isaac.
1952. Fishes of the family Carangidae of the northern Gulf of Mexico and three related species. Pub. Inst. Mar. Sci., 2(2): 43-117, 1 fig., pls. 1-7.

Gurney, Robert,
1924. Crustacea. Part IX.--Decapod larvae. British Antarctic ("Terra Nova") Expedition, 1910. Natural History Report. Brit. Mus. (Nat. Hist.), Zool., 8(2): 37-202, figs. 1-78.

1936. Larvae of decapod Crustacea. Part I. Stenopidea. Part II. Amphionidae. Part III. Phyllosoma. Discovery Rept., 12: 377-440, figs. 1-42.

1937. Larvae of decapod Crustacea. Part IV. Hippolytidae. Discovery Rept., 14: 351-404, figs. 1-137.

1938. Larvae of decapod Crustacea. Part V. Nephropsidea and Thalassinidea. Discovery Rept., 17: 291-344, figs. 1-39.

1938. The Larvae of the decapod Crustacea Palaemonidae and Alpheidae. Great Barrier Reef Expedition, 1928-29. Scientific Reports. Brit. Mus. (Nat. Hist.), 6(1): 1-60, figs. 1-265.

1947. Some notes on the development of the Euphausiacea. Proc. Zool. Soc. London, 117(1): 49-64, 8 figs.

Gurney, R., and M. V. Lebour.
1940. Larvae of decapod Crustacea. Part VI. The genus Sergestes. Discovery Rept., 20: 1-68, figs. 1-56.

Hildebrand, Samuel F.
1943. A review of the American anchovies (Family Engraulidae). Bull. Bingham Oceanogr. Coll., 3(Art. 2): 1-165, figs. 1-72.

Hyman, Libbie Henrietta.
1955. The invertebrates: Echinodermata, the coelomate Bilateria, Vol. IV. McGraw-Hill Book Co., Inc., N.Y., vii-763 pp., figs. 1-280.

Jordon, David Starr.
1919. On a rare species of half-beak Hemiramphus balao, from Cuba. Proc. U. S. Natl. Mus., 55(2277): 397-398, 1 fig.

Miller, Robert R.
1946. Distributional records for North American fishes, with nomenclatorial notes on the genus Psenes. J. Wash. Acad. Sci., 36(6): 206-212.

Nichols, J. T.
1937. On Caranx hippos (Linnaeus) from Ecuador. COPEIA, 1937(1): 58-59.

1938. Notes on carangin fishes. III. - On Caranx sexfasciatus Quoy and Gaimard. Amer. Mus. Novitates, No. 998, pp. 1-6.

1939. Young Caranx in the Western North Atlantic. Bull. Bingham Oceanogr. Coll., 7(Art. 2): 1-9.

Wood, Loren P.
1955. Western Atlantic species of the genus Holocentrus. Fieldiana: Zool., 37: 91-119, figs. 14-18.

Table 1.--Compass direction conversion table for wind, sea, and swell directions

Code	Direction
00	Calm
01	5° to 14°
02	15° to 24° NNE
03	25° to 34°
04	35° to 44°
05	45° to 54° NE
06	55° to 64°
07	65° to 74° ENE
08	75° to 84°
09	85° to 94° E
10	95° to 104°
11	105° to 114° ESE
12	115° to 124°
13	125° to 134°
14	135° to 144° SE
15	145° to 154°
16	155° to 164° SSE
17	165° to 174°
18	175° to 184° S
19	185° to 194°
20	195° to 204° SSW
21	205° to 214°
22	215° to 224°
23	225° to 234° SW
24	235° to 244°
25	245° to 254° WSW
26	255° to 264°
27	265° to 274° W
28	275° to 284°
29	285° to 294° WNW
30	295° to 304°
31	305° to 314°
32	315° to 324° NW
33	325° to 334°
34	335° to 344° NNW
35	345° to 354°
36	355° to 4° N

TABLE II NUMERICAL WEATHER CODES—PRESENT WEATHER

00 Cloud development NOT observed or NOT observable during past hour.	**01** Clouds generally dissolving or becoming less developed during past hour.	**02** State of sky on the whole unchanged during past hour.	**03** Clouds generally forming or developing during past hour.	**04** Visibility reduced by smoke.	**05** Haze.	**06** Widespread dust in suspension in the air, NOT raised by wind, at time of observation.	**07** Dust or sand raised by wind, at time of observation.	**08** Well developed dust devil(s) within past hour	**09** Duststorm or sand storm within sight of or at station during past hour.
10 Light fog.	**11** Patches of shallow fog at station, NOT deeper than 6 feet on land.	**12** More or less continuous shallow fog at station, NOT deeper than 6 feet on land.	**13** Lightning visible, no thunder heard.	**14** Precipitation within sight, but NOT reaching the ground.	**15** Precipitation within sight, reaching the ground, but distant from station.	**16** Precipitation within sight, reaching the ground, near to but NOT at station.	**17** Thunder heard, but no precipitation at the station.	**18** Squall(s) within sight during past hour	**19** Funnel cloud(s) within sight during past hour.
20 Drizzle (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	**21** Rain (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	**22** Snow (NOT falling as showers) during past hour, but NOT at time of observation.	**23** Rain and snow (NOT falling as showers) during past hour, but NOT at time of observation.	**24** Freezing drizzle or freezing rain (NOT falling as showers) during past hour, but NOT at time of observation.	**25** Showers of rain during past hour, but NOT at time of observation.	**26** Showers of snow, or of rain and snow, during past hour, but NOT at time of observation.	**27** Showers of hail, or of hail and rain, during past hour, but NOT at time of observation.	**28** Fog during past hour, but NOT at time of observation.	**29** Thunderstorm (with or without precipitation) during past hour, but NOT at time of observation
30 Slight or moderate duststorm or sandstorm has decreased during past hour.	**31** Slight or moderate duststorm or sandstorm no appreciable change during past hour.	**32** Slight or moderate duststorm or sandstorm has increased during past hour.	**33** Severe duststorm or sandstorm, has decreased during past hour.	**34** Severe duststorm or sandstorm, no appreciable change during past hour.	**35** Severe duststorm or sandstorm, has increased during past hour.	**36** Slight or moderate drifting snow, generally low.	**37** Heavy drifting snow, generally low.	**38** Slight or moderate drifting snow, generally high.	**39** Heavy drifting snow, generally high.
40 Fog at distance at time of observation, but NOT at station during past hour.	**41** Fog in patches.	**42** Fog, sky discernible, has become thinner during past hour.	**43** Fog, sky NOT discernible, has become thinner during past hour.	**44** Fog, sky discernible, no appreciable change during past hour.	**45** Fog, sky NOT discernible no appreciable change during past hour.	**46** Fog, sky discernible, has begun or become thicker during past hour.	**47** Fog, sky NOT discernible, has begun or become thicker during past hour.	**48** Fog, depositing rime, sky discernible.	**49** Fog, depositing rime, sky not discernible
50 Intermittent drizzle (NOT freezing) slight at time of observation.	**51** Continuous drizzle (NOT freezing) slight at time of observation.	**52** Intermittent drizzle (NOT freezing) moderate at time of ob.	**53** Continuous drizzle (NOT freezing), moderate at time of ob.	**54** Intermittent drizzle (NOT freezing), thick at time of observation.	**55** Continuous drizzle (NOT freezing), thick at time of observation.	**56** Slight freezing drizzle.	**57** Moderate or thick freezing drizzle.	**58** Drizzle and rain, slight.	**59** Drizzle and rain, moderate or heavy
60 Intermittent rain (NOT freezing), slight at time of observation.	**61** Continuous rain (NOT freezing), slight at time of observation.	**62** Intermittent rain (NOT freezing), moderate at time of ob.	**63** Continuous rain (NOT freezing), moderate at time of observation.	**64** Intermittent rain (NOT freezing), heavy at time of observation.	**65** Continuous rain (NOT freezing), heavy at time of observation.	**66** Slight freezing rain.	**67** Moderate or heavy freezing rain.	**68** Rain or drizzle and snow, slight.	**69** Rain or drizzle and snow, moderate or heavy.
70 Intermittent fall of snowflakes, slight at time of observation.	**71** Continuous fall of snowflakes, slight at time of observation.	**72** Intermittent fall of snowflakes, moderate at time of observation.	**73** Continuous fall of snowflakes, moderate at time of observation.	**74** Intermittent fall of snowflakes, heavy at time of observation.	**75** Continuous fall of snowflakes, heavy at time of observation.	**76** Ice needles (with or without fog).	**77** Granular snow (with or without fog).	**78** Isolated starlike snow crystals (with or without fog).	**79** Ice pellets (sleet, U. S. definition).
80 Slight rain shower(s).	**81** Moderate or heavy rain shower(s).	**82** Violent rain shower(s).	**83** Slight shower(s) of rain and snow mixed.	**84** Moderate or heavy shower(s) of rain and snow mixed.	**85** Slight snow shower(s).	**86** Moderate or heavy snow shower(s).	**87** Slight shower(s) of soft or small hail with or without rain or rain and snow mixed.	**88** Moderate or heavy shower(s) of soft or small hail with or without rain or rain and snow mixed.	**89** Slight shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder
90 Moderate or heavy shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder.	**91** Slight rain at time of ob.; thunderstorm during past hour, but NOT at time of observation.	**92** Moderate or heavy rain at time of ob.; thunderstorm during past hour, but NOT at time of observation.	**93** Slight snow or rain and snow mixed or hail at time of observation.; thunderstorm during past hour, but not at time of observations.	**94** Mod. or heavy snow, or rain and snow mixed or hail at time of ob.; thunderstorm during past hour, but NOT at time of observation.	**95** Slight or mod. thunderstorm without hail, but with rain and/or snow at time of observation.	**96** Slight or moderate thunderstorm, with hail at time of observation.	**97** Heavy thunderstorm, without hail, but with rain and/or snow at time of observation.	**98** Thunderstorm combined with duststorm or sandstorm at time of observation.	**99** Heavy thunderstorm with hail at time of observation.

Table 3.--Cloud type

Code	
0	Stratus or Fractostratus
1	Cirrus
2	Cirrostratus
3	Cirrocumulus
4	Altocumulus
5	Altostratus
6	Stratuscumulus
7	Nimbostratus
8	Cumulus or Fractocumulus
9	Cumulonumbus

Table 4.--Cloud amount

Code	
0	No clouds
1	Less than 1/10 or 1/10
2	2/10 and 3/10
3	4/10
4	5/10
5	6/10
6	7/10 and 8/10
7	9/10 and 9/10 plus
8	10/10
9	Sky obscured

Table 5.--Sea amount

Code	Approximate Height (feet)	Description
0	------	Calm
1	Less than 1	Smooth
2	1 to 3	Slight
3	3 to 5	Moderate
4	5 to 8	Rough
5	8 to 12	Very rough
6	12 to 20	High
7	20 to 40	Very high
8	40 and over	Mountainous
9	------	Very rough confused sea

Table 6.--Swell amount

Code	Approximate Height (feet)	Description		Approximate Length (feet)
0	----	No swell		----
1	1 to 6	Low swell	Short or Average	0 to 600
2			Long	Above 600
3	6 to 12	Moderate	Short	0 to 300
4			Average	300 to 600
5			Long	Above 600
6	Greater than 12	High	Short	0 to 300
7			Average	300 to 600
8			Long	Above 600
9	----	Confused		----

Table 7. Visibility

Code

0	Dense fog	50 yards
1	Thick fog	200 yards
2	Fog	400 yards
3	Moderate fog	1000 yards
4	Thin fog or mist	1 mile
5	Visibility poor	2 miles
6	Visibility moderate	5 miles
7	Visibility good	10 miles
8	Visibility very good	30 miles
9	Visibility excellent	Over 30 miles

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Table 8.--Plankton volumes (half-meter silk net)

Sta.	Position N. Lat.	Position W. Long.	(1953) Date	Time (EST) Start	Time (EST) End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
1	27°00'	79°18'	Apr. 22	2054	2120	-	0-50	-
2	26°56'	79°41'	Apr. 23	0120	0144	279.4	0-70	0.086
3	27°01'	80°04'	Apr. 23	0508	0528	201.2	0-4	0.114
4	27°20'	80°04'	Apr. 23	0817	0839	94.7	0-8	0.370
5	27°40'	80°04'	Apr. 23	1116	1138	96.9	0-43	0.175
6	27°40'	79°41'	Apr. 23	1542	1605	184.2	0-77	0.103
7	27°40'	79°18'	Apr. 23	1939	2004	211.1	0-77	0.090
8	28°19'	79°26'	Apr. 24	1743	1809	153.5	0-73	0.130
9	28°20'	79°48'	Apr. 24	0934	0959	169.6	0-53	0.071
10	28°18'	80°10'	Apr. 24	1233	1255	89.1	0-13	0.168
11	28°20'	80°32'	Apr. 24	1500	1521	150.1	0-3	0.220
12	28°41'	80°26'	Apr. 24	1901	1922	106.9	0-7	0.449
13	29°00'	80°33'	Apr. 24	2145	2207	126.4	0-3	0.672
14	29°01'	80°08'	Apr. 25	0100	0123	143.4	0-38	0.188
15	28°58'	79°47	Apr. 25	0613	0637	183.3	0-59	0.066
16	29°00'	79°26'	Apr. 25	1136	1202	190.9	0-50	0.042
17	29°40'	79°37'	Apr. 25	1715	1742	163.5	0-50	0.098
18	29°40'	80°00'	Apr. 25	2155	2220	140.9	0-67	0.241
19	29°39'	80°23'	Apr. 26	0211	0232	159.3	0-31	0.207
20	29°40'	80°45'	Apr. 26	0715	0736	118.3	0-8	0.338
21	29°39'	81°08'	Apr. 26	1000	1020	139.0	0-4	0.266
22	30°00'	81°14'	Apr. 26	1239	1300	117.1	0-3	0.333
23	30°20'	81°20'	Apr. 26	1513	1535	205.6	0-3	0.044
24	30°20'	80°57'	Apr. 26	1829	1850	109.1	0-11	0.202
25	30°20'	80°35'	Apr. 26	2121	2142	89.9	0-16	0.834
26	30°20'	80°12'	Apr. 27	0035	0105	143.4	0-67	0.418
27	30°19'	79°50'	Apr. 27	0415	0439	186.7	0-56	0.214
28	30°20'	79°28'	Apr. 27	0731	0757	209.8	-	0.095
29	30°56'	79°16'	Apr. 27	1246	1310	190.8	0-77	0.052
30	31°00'	79°38'	Apr. 27	1715	1741	226.2	0-59	0.124
31	31°00'	79°59'	Apr. 27	2150	2210	151.3	0-43	0.330
32	31°00'	80°23'	Apr. 28	0100	0121	104.2	0-12	1.392
33	31°00'	80°46'	Apr. 28	0346	0405	164.3	0-9	0.913
34	31°00'	81°09'	Apr. 28	0623	0644	227.3	0-3	0.132
35	31°21'	80°55'	May 4	2020	2041	130.1	0-4	0.500
36	31°42'	80°38'	May 4-5	2356	0018	110.6	0-12	0.217
37	31°38'	80°14'	May 5	0238	0301	128.7	0-15	0.427
38	31°36'	79°51'	May 5	0600	0621	112.2	0-23	0.356
39	31°34'	79°27'	May 5	1005	1031	144.0	0-47	0.299
40	31°29'	78°41'	May 5	1530	1554	201.9	0-50	0.079
41	31°41'	79°00'	May 5	1947	2014	175.9	0-70	0.171
42	31°57'	79°18'	May 5-6	2347	0013	123.8	0-70	0.404
43	32°12'	79°33'	May 6	0348	0409	126.0	0-12	0.357
44	32°26'	79°50'	May 6	0643	0704	149.2	0-3	0.094

Table 8.--Plankton volumes (half-meter silk net), cont'd

Sta.	Position N. Lat.	Position W. Long.	(1953) Date	Time (EST) Start	Time (EST) End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
45	32°40'	79°32'	May 6	0938	0959	122.6	0-3	0.261
46	32°54'	79°16'	May 6	1214	1235	114.7	0-4	0.087
47	32°40'	79°00'	May 6	1459	1521	111.0	0-11	0.595
48	32°24'	78°43'	May 6	1903	1928	144.2	0-56	0.374
49	32°12'	78°25'	May 6	2328	2353	151.3	0-42	0.430
53	32°50'	78°05'	May 7	1319	1348	206.4	0-44	0.194
54	33°03'	78°21'	May 7	1614	1635	122.9	0-11	0.651
55	33°17'	78°38'	May 7	1911	1932	116.6	0-10	0.317
56	33°32'	78°55'	May 7	2143	2203	106.1	Surface	0.396
57	33°34'	78°25'	May 8	0056	0115	147.7	0-3	0.203
58	33°36'	77°56'	May 8	0359	0420	160.8	0-3	0.162
59	33°22'	77°37'	May 8	0644	0705	122.0	0-9	0.779
60	33°07'	77°20'	May 8	0948	1020	192.4	0-62	0.203
61	32°54'	77°04'	May 8	1331	1355	107.4	0-64	0.466
62	32°43'	76°48'	May 8	1744	1808	175.8	0-50	0.159
63	33°15'	76°23'	May 8	2205	2230	168.4	0-53	0.291
64	33°33'	76°56'	May 9	0215	0237	153.7	0-35	0.488
65	33°42'	76°56'	May 9	0405	0427	114.4	0-20	0.472
66	33°57'	77°13'	May 9	0700	0721	178.7	0-11	0.476
67	34°11'	77°30'	May 9	1104	1125	126.8	0-3	0.158
68	34°23'	77°10'	May 9	1356	1417	170.2	0-3	0.088
69	34°32'	76°50'	May 9	1637	1658	166.6	0-10	0.030
70	34°18'	76°32'	May 9	1925	1946	117.1	0-9	0.137
71	34°04'	76°15'	May 9	2230	2256	133.6	0-52	0.270
72	33°49'	75°59'	May 10	0302	0325	164.4	0-47	0.243
73	34°10'	75°20'	May 10	1024	1050	215.0	0-60	0.107
74	34°24'	75°36'	May 10	1539	1604	194.0	0-64	0.026
75	34°39'	75°53'	May 10	1922	1943	107.4	0-18	0.559
76	34°53'	76°10'	May 10	2230	2251	127.6	0-4	0.118
77	35°01'	75°45'	May 11	0132	0153	114.7	0-10	0.131
78	35°06'	75°21'	May 11	0433	0454	122.9	0-10	0.179
80	34°38'	74°46'	May 12	1355	1422	184.2	0-70	0.081
Spc. 1	34°00'	74°18'	May 12	2129	2155	119.8	0-56	0.150
Spc. 2	33°00'	75°01'	May 13	0804	0828	208.9	0-57	0.048
Spc. 3	32°00'	76°00'	May 13	1858	1923	181.2	0-42	0.077
Spc. 4	31°00'	77°00'	May 14	0558	0621	145.2	0-70	0.131
Spc. 5	30°00'	77°00'	Apr. 17	2250	2315	156.8	0-74	0.179
Spc. 6	29°00'	76°59'	Apr. 18	0807	0832	214.7	0-77	0.037
Spc. 7	28°00'	77°00'	Apr. 18	1609	1636	178.1	0-70	0.039
Spc. 8	27°58'	78°00'	Apr. 18-19	2350	0016	199.5	0-87	0.015
Spc. 9	28°00'	79°01'	Apr. 24	0044	0107	199.7	0-56	0.050

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net)

Station Number	Reg. 1*	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6	Reg. 7	Reg. 8
Protozoa	7800	17.2	8.2	18.8	59.8	10.3	34.1	37.8
Coelenterata	340	4.4	7.2	1.7	4.1	4.4	3.9	3.4
Chaetognatha	880	7.6	3.3	15.0	6.2	9.9	2.4	3.9
Misc. Worms	120	0.8	1.3	1.0	1.2	1.0	2.5	1.4
Copepoda	7960	45.1	70.6	188.0	44.8	110.5	58.9	56.5
Ostracoda	420	1.9	6.0	3.4	2.7	1.3	3.6	2.5
Mysidacea	-	0.1	0.1	0.2	0.2	0.2	-	-
Amphipoda	140	0.7	1.0	1.7	0.8	1.6	0.6	0.6
Isopoda	-	-	0.2	-	-	-	-	-
Stomatopoda	-	-	0.2	0.4	-	-	-	-
Euphausiacea	480	2.1	-	28.1	4.5	1.3	5.0	3.5
Shrimp	240	0.8	31.1	20.5	3.9	1.4	0.8	1.0
Crabs	220	0.7	5.4	27.0	1.2	0.4	0.4	0.1
Misc. Crustaceans	120	0.1	0.5	0.2	1.4	0.1	0.8	1.7
Pteropoda	140	1.8	1.5	1.0	1.8	0.9	1.0	0.6
Misc. Mollusca	480	1.8	1.7	0.8	2.5	0.9	2.5	0.5
Larvacea	6500	1.6	1.3	16.0	15.9	3.5	23.8	13.4
Misc. Tunicata	160	2.9	4.1	4.0	5.2	1.1	0.7	0.8
Leptocardia	-	-	-	-	-	<0.01	-	-
Misc. Organisms	340	1.4	2.1	0.8	2.3	0.6	1.0	0.3
Subtotal	26940	91.0	145.8	328.6	158.5	149.4	142.0	128.0
Fish Eggs	2	0.09	3.44	3.76	1.73	0.01	0.07	0.04
Fish Larvae	186	0.45	1.64	1.13	0.69	0.27	1.23	0.72
Total	27128	91.5	150.9	333.5	160.9	149.7	143.3	128.8

* Total number of organisms in sample, water volume not determined

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 9	Reg. 10	Reg. 11	Reg. 12	Reg. 13	Reg. 14	Reg. 15	Reg. 16
Protozoa	13.3	35.2	39.2	13.6	19.6	38.6	12.8	28.4
Coelenterata	5.7	7.8	0.4	0.9	0.6	11.0	9.7	4.4
Chaetognatha	6.2	9.0	17.6	6.4	17.4	9.6	5.7	4.7
Misc. Worms	0.5	1.3	-	29.9	2.7	0.6	1.2	0.3
Copepoda	103.7	178.4	313.6	62.5	350.5	74.0	43.1	24.0
Ostracoda	1.5	-	0.8	0.4	4.7	1.0	3.7	0.4
Mysidacea	0.1	-	-	0.4	38.0	-	-	-
Amphipoda	0.4	0.9	-	-	3.3	1.4	0.6	0.6
Isopoda	-	-	0.3	-	-	-	-	-
Stomatopoda	-	-	1.6	0.2	1.1	0.1	-	-
Euphausiacea	1.2	4.9	5.6	-	12.3	2.8	4.0	3.7
Shrimp	1.1	0.2	52.0	3.0	18.8	2.1	0.5	0.8
Crabs	0.5	3.8	93.9	50.1	253.2	2.8	-	0.3
Misc. Crustaceans	-	1.6	0.1	59.5	2463.8	14.1	0.5	0.8
Pteropoda	1.5	0.2	-	0.7	3.3	4.3	0.6	0.3
Misc. Mollusca	0.2	0.9	1.5	0.6	3.6	6.0	2.2	2.3
Larvacea	3.5	12.3	2.5	9.4	17.6	2.5	4.2	6.9
Misc. Tunicata	0.9	2.5	-	0.2	0.2	7.9	0.3	0.6
Leptocardia	-	-	-	<0.01	0.60	<0.01	-	-
Misc. Organisms	2.2	1.3	345.5	371.4	0.3	19.0	0.3	1.2
Subtotal	142.5	260.3	874.6	609.2	3211.6	197.8	89.4	79.7
Fish Eggs	0.04	13.10	6.56	28.06	97.84	1.38	0.02	0.02
Fish Larvae	0.07	0.84	0.55	1.28	27.28	1.05	0.21	0.51
Total	142.6	274.2	881.7	638.5	3336.7	200.2	89.6	80.2

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 17	Reg. 18	Reg. 19	Reg. 20	Reg. 21	Reg. 22	Reg. 23	Reg. 24
Protozoa	14.4	37.5	74.1	0.3	2.2	2.4	5.4	43.3
Coelenterata	5.6	19.9	38.5	7.8	0.1	2.9	0.9	1.6
Chaetognatha	8.1	14.8	6.6	25.0	2.6	5.3	28.3	17.2
Misc. Worms	1.2	1.7	1.2	2.4	4.9	0.2	0.4	2.4
Copepoda	54.1	219.7	351.3	213.2	66.0	195.5	15.4	211.8
Ostracoda	2.2	4.8	1.8	15.2	0.3	-	0.1	0.2
Mysidacea	-	0.1	17.4	-	9.9	-	-	-
Amphipoda	1.0	3.3	2.6	0.5	-	-	-	1.5
Isopoda	-	-	1.0	-	-	-	-	-
Stomatopoda	-	-	-	0.8	1.9	3.8	0.4	-
Euphausiacea	5.1	8.4	1.9	0.7	1.0	-	-	1.8
Shrimp	2.3	1.4	14.6	8.4	7.9	9.9	0.8	15.6
Crabs	0.4	0.1	2.5	68.3	38.7	79.2	20.5	34.1
Misc. Crustaceans	1.5	0.1	1.5	0.7	3.4	1.0	59.7	37.6
Pteropoda	1.6	4.1	0.8	0.7	0.1	-	-	1.6
Misc. Mollusca	2.0	3.5	2.0	0.8	2.2	1.7	0.1	4.9
Larvacea	7.6	8.5	5.9	13.2	37.4	249.8	8.8	30.6
Misc. Tunicata	0.7	2.3	10.3	1.4	-	-	-	0.4
Leptocardia	0.01	-	-	0.17	-	-	-	0.33
Misc. Organisms	0.4	1.7	2.0	11.2	195.2	921.6	135.1	69.9
Subtotal	108.2	331.9	536.0	370.8	373.8	1473.3	275.9	474.8
Fish Eggs	<0.01	0.01	15.94	22.54	3.11	7.59	83.35	46.15
Fish Larvae	0.83	0.60	5.20	1.50	0.51	1.17	0.73	2.38
Total	109.0	332.5	557.1	394.8	377.4	1482.1	360.0	523.4

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 25	Reg. 26	Reg. 27	Reg. 28	Reg. 29	Reg. 30	Reg. 31	Reg. 32
Protozoa	34.5	51.7	12.2	29.4	15.3	14.0	38.9	1.5
Coelenterata	14.0	9.2	62.4	19.2	3.6	9.1	26.3	2.5
Chaetognatha	18.7	20.6	5.9	9.4	3.9	11.8	10.6	7.3
Misc. Worms	2.9	0.8	2.5	1.0	0.4	0.4	1.9	0.6
Copepoda	1419.6	363.7	49.3	41.0	31.0	90.0	243.8	166.8
Ostracoda	3.1	10.0	2.6	2.1	1.6	2.1	0.9	2.5
Mysidacea	2.0	-	-	-	-	-	17.2	0.4
Amphipoda	22.7	4.2	1.1	0.4	0.4	2.3	3.6	10.2
Isopoda	-	-	-	-	-	-	0.7	-
Stomatopoda	0.2	0.3	-	-	-	-	-	0.2
Euphausiacea	29.8	3.8	6.7	6.7	2.8	4.1	2.4	1.0
Shrimp	77.6	26.6	0.2	1.9	1.5	1.7	33.3	16.9
Crabs	40.9	13.7	0.1	-	0.1	0.1	6.2	23.8
Misc. Crustaceans	4.0	21.3	0.1	0.4	0.2	-	1.8	2.7
Pteropoda	2.7	3.5	1.3	0.8	0.1	1.1	3.6	0.1
Misc. Mollusca	3.6	8.4	5.1	3.0	1.6	3.2	3.3	1.7
Larvacea	18.2	11.6	2.5	9.3	3.0	9.6	13.4	1.7
Misc. Tunicata	10.9	13.7	0.2	0.6	0.6	0.7	28.2	158.5
Leptocardia	0.22	-	0.11	<0.01	0.02	-	-	-
Misc. Organisms	7.8	1.0	1.3	2.2	1.2	0.9	0.9	6.3
Subtotal	1713.4	564.1	153.6	127.4	67.3	151.1	437.0	404.7
Fish Eggs	47.14	14.03	0.04	0.04	0.04	0.01	3.27	6.56
Fish Larvae	6.54	7.29	0.61	0.52	0.14	0.33	6.03	0.60
Total	1767.1	585.4	154.3	128.0	67.5	151.4	446.3	411.9

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 33	Reg. 34	Reg. 35	Reg. 36	Reg. 37	Reg. 38	Reg. 39	Reg. 40
Protozoa	59.2	241.5	122.2	5.2	0.2	5.0	16.1	26.0
Coelenterata	6.8	0.5	6.0	2.0	9.8	8.0	11.7	7.9
Chaetognatha	39.9	34.8	25.0	9.6	13.7	7.7	19.4	11.0
Misc. Worms	0.5	4.1	2.4	0.2	0.6	0.9	0.8	1.1
Copepoda	260.6	125.0	663.2	117.7	189.5	451.6	176.7	110.2
Ostracoda	16.8	0.2	0.9	4.3	1.9	1.6	1.0	1.8
Mysidacea	1.0	0.1	4.9	1.4	0.3	-	0.3	-
Amphipoda	25.9	0.9	8.9	4.7	6.4	1.2	2.8	0.4
Isopoda	1.2	0.1	3.2	0.4	-	-	0.1	-
Stomatopoda	0.1	0.1	0.2	-	0.2	0.4	0.3	-
Euphausiacea	-	-	-	-	-	-	4.2	4.6
Shrimp	36.8	2.3	6.6	1.1	3.3	20.7	3.9	1.6
Crabs	28.2	60.2	28.9	10.7	31.5	10.3	1.7	0.1
Misc. Crustaceans	8.4	153.9	762.6	11.2	2.6	3.4	0.7	0.6
Pteropoda	-	0.1	-	-	-	1.2	2.4	0.3
Misc. Mollusca	5.1	1.0	7.1	3.1	0.2	2.0	4.0	2.9
Larvacea	0.6	10.6	7.1	11.8	35.0	14.3	13.0	6.9
Misc. Tunicata	5.4	0.2	-	0.4	14.0	5.3	3.2	1.5
Leptocardia	0.12	1.67	0.02	0.60	-	-	-	-
Misc. Organisms	0.2	139.9	1.5	8.7	15.7	0.5	3.6	2.2
Subtotal	496.8	777.2	1650.7	193.1	324.9	534.1	265.9	179.1
Fish Eggs	34.51	9.68	32.58	23.02	27.78	3.51	0.03	0.06
Fish Larvae	4.97	2.06	6.10	0.69	2.34	4.96	0.58	1.08
Total	536.3	788.9	1689.4	216.8	355.0	542.6	266.5	180.2

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 41	Reg. 42	Reg. 43	Reg. 44	Reg. 45	Reg. 46	Reg. 47	Reg. 48
Protozoa	14.6	23.9	6.0	105.1	11.9	9.8	5.0	120.5
Coelenterata	9.9	6.1	6.2	16.4	0.6	4.4	6.7	13.6
Chaetognatha	6.4	7.1	14.3	11.3	11.7	4.9	13.0	11.8
Misc. Worms	0.9	2.4	1.0	0.3	0.3	0.3	-	2.1
Copepoda	82.0	289.4	294.4	167.7	81.6	186.7	212.0	335.2
Ostracoda	4.3	7.6	44.9	7.8	8.5	0.9	-	11.4
Mysidacea	0.1	-	1.9	-	-	-	-	-
Amphipoda	2.2	5.6	6.0	0.3	0.3	0.3	3.6	6.1
Isopoda	-	-	0.3	-	-	-	-	-
Stomatopoda	-	-	0.2	0.1	-	-	-	-
Euphausiacea	6.5	1.9	0.5	-	-	-	-	4.0
Shrimp	1.6	19.2	11.1	1.5	0.3	0.3	2.3	17.9
Crabs	0.2	6.3	28.4	72.0	43.6	17.1	4.7	1.5
Misc. Crustaceans	1.0	10.8	1.1	106.6	20.7	20.7	0.9	9.4
Pteropoda	3.5	1.6	1.7	0.3	-	0.7	-	2.2
Misc. Mollusca	4.2	6.0	0.8	0.8	0.3	-	1.1	6.0
Larvacea	9.7	13.9	7.5	2.0	33.1	18.0	4.3	8.0
Misc. Tunicata	2.5	9.2	20.3	0.7	18.9	-	14.6	23.3
Leptocardia	<0.01	<0.01	-	0.08	0.10	0.33	-	-
Misc. Organisms	1.5	2.9	66.0	1.6	12.7	53.5	17.6	31.8
Subtotal	151.1	413.9	512.6	494.6	244.6	317.9	285.8	604.8
Fish Eggs	0.01	2.91	16.46	19.80	9.36	23.34	16.02	0.53
Fish Larvae	0.68	1.83	8.24	0.31	0.52	1.19	2.66	1.04
Total	151.8	418.6	537.3	514.7	254.5	342.5	304.5	606.4

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 49	Reg. 53	Reg. 54	Reg. 55	Reg. 56	Reg. 57	Reg. 58	Reg. 59
Protozoa	7.9	83.2	2.9	20.6	7.9	77.5	10.9	0.5
Coelenterata	9.5	7.0	33.0	11.7	3.2	1.1	1.5	22.8
Chaetognatha	6.9	17.8	27.0	20.9	13.2	11.0	9.3	66.0
Misc. Worms	0.7	1.4	0.3	0.8	1.3	0.4	1.0	0.8
Copepoda	306.9	139.7	826.2	467.3	633.4	358.8	37:3	952.3
Ostracoda	6.5	2.7	0.8	32.6	1.7	2.3	0.1	272.8
Mysidacea	0.3	-	-	0.2	1.5	13.1	8.2	-
Amphipoda	3.3	1.9	6.2	2.2	2.8	1.8	2.7	50.4
Isopoda	0.1	0.1	-	0.2	0.4	-	0.1	0.2
Stomatopoda	0.3	0.1	0.3	0.8	0.6	-	-	0.2
Euphausiacea	3.0	5.6	-	-	-	-	-	-
Shrimp	24.3	2.9	4.9	6.9	7.0	9.9	1.9	5.7
Crabs	3.4	0.2	26.7	32.1	47.3	20.3	5.2	2.3
Misc. Crustaceans	3.3	0.5	2.8	17.8	505.5	155.0	118.6	3.9
Pteropoda	3.6	1.9	0.5	0.2	-	-	0.1	4.9
Misc. Mollusca	6.6	2.5	0.6	2.4	1.1	0.8	3.4	2.3
Larvacea	0.9	10.9	4.2	12.7	8.5	3.5	3.2	5.7
Misc. Tunicata	22.7	5.3	0.5	7.2	-	-	-	0.7
Leptocardia	-	-	-	1.23	0.04	0.58	<0.01	-
Misc. Organisms	16.2	2.7	0.8	1.4	46.7	0.7	73.8	1182.7
Subtotal	426.4	286.4	937.7	639.2	1282.1	656.8	277.3	2574.2
Fish Eggs	0.04	0.23	32.37	29.53	18.38	13.67	2.43	17.50
Fish Larvae	1.42	0.48	2.99	1.28	2.09	0.85	0.16	2.40
Total	427.9	287.1	973.1	670.0	1302.6	671.3	279.9	2594.1

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 60	Reg. 61	Reg. 62	Reg. 63	Reg. 64	Reg. 65	Reg. 66	Reg. 67
Protozoa	25.5	100.7	33.4	81.8	95.2	7.2	1.3	143.8
Coelenterata	5.6	8.8	9.1	9.4	10.9	10.3	18.1	16.7
Chaetognatha	6.6	11.2	19.6	15.1	13.7	19.2	19.2	23.2
Misc. Worms	0.4	1.7	1.8	4.6	1.7	0.3	0.4	5.0
Copepoda	124.5	244.8	121.8	195.1	257.9	613.4	468.6	83.6
Ostracoda	4.3	3.9	3.8	4.8	15.5	5.6	0.3	7.1
Mysidacea	-	-	-	-	1.3	13.6	0.1	-
Amphipoda	2.2	3.7	2.2	3.6	4.9	5.9	2.5	1.3
Isopoda	-	0.2	0.3	0.1	0.1	0.3	0.1	0.2
Stomatopoda	-	-	-	-	-	0.2	0.7	-
Euphausiacea	4.0	1.1	5.0	4.4	5.6	3.7	-	-
Shrimp	1.2	13.2	1.3	1.5	33.8	7.5	4.9	0.5
Crabs	0.6	2.2	-	0.7	2.0	3.5	3.9	4.3
Misc. Crustaceans	2.7	2.0	0.2	0.7	2.1	3.7	10.4	125.4
Pteropoda	1.2	3.4	1.5	3.8	1.6	3.7	2.8	-
Misc. Mollusca	1.4	3.9	4.0	8.4	1.6	2.3	0.4	41.8
Larvacea	4.7	6.1	5.3	14.1	5.1	13.3	1.1	47.8
Misc. Tunicata	4.9	11.2	3.9	8.6	25.8	3.5	1.3	0.5
Leptocardia	-	-	-	0.02	-	-	-	2.63
Misc. Organisms	2.9	2.0	4.7	3.4	1.3	39.0	0.1	433.0
Subtotal	192.7	420.1	217.9	360.1	480.1	756.2	536.2	936.8
Fish Eggs	25.94	0.13	0.01	0.04	2.18	7.88	9.27	0.53
Fish Larvae	0.30	1.47	0.56	0.80	1.72	1.11	3.06	0.75
Total	218.9	421.7	218.5	361.0	484.0	765.2	548.5	938.1

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 68	Reg. 69	Reg. 70	Reg. 71	Reg. 72	Reg. 73	Reg. 74	Reg. 75
Protozoa	34.9	134.9	20.0	32.9	25.1	20.0	6.9	1.7
Coelenterata	12.1	0.5	5.3	13.8	9.2	12.5	7.6	6.3
Chaetognatha	0.8	8.8	8.2	15.7	15.1	19.6	9.1	7.4
Misc. Worms	0.7	-	0.3	1.8	1.8	0.9	0.5	0.7
Copepoda	127.0	1.2	74.2	111.1	140.6	94.6	63.4	375.0
Ostracoda	1.4	-	0.8	13.5	8.4	3.1	3.8	0.2
Mysidacea	-	-	0.3	0.9	0.1	-	-	-
Amphipoda	2.1	-	0.7	2.2	3.3	0.7	1.3	2.4
Isopoda	-	-	-	-	0.1	-	-	0.4
Stomatopoda	-	-	-	-	-	-	-	-
Euphausiacea	-	-	-	4.0	7.8	4.6	7.1	0.7
Shrimp	0.2	3.4	2.4	1.2	1.5	2.2	1.6	3.0
Crabs	1.4	0.8	2.9	0.9	0.2	0.2	-	3.5
Misc. Crustaceans	54.8	7.8	177.4	1.3	0.4	0.6	0.5	86.8
Pteropoda	-	-	-	3.4	3.4	0.8	0.7	0.2
Misc. Mollusca	2.0	46.5	2.0	6.4	5.0	2.1	2.4	0.9
Larvacea	10.2	2.3	39.4	6.4	10.6	8.5	1.3	8.8
Misc. Tunicata	0.1	-	-	9.9	9.2	1.6	4.7	88.8
Leptocardia	0.04	0.04	0.90	<0.01	-	<0.01	-	-
Misc. Organisms	1.6	62.4	166.6	18.6	13.4	11.1	6.0	91.2
Subtotal	249.3	268.6	501.4	244.0	255.2	183.1	116.9	678.0
Fish Eggs	6.60	0.44	5.60	3.61	0.01	0.12	0.08	15.09
Fish Larvae	0.18	0.14	0.06	0.61	0.59	0.65	0.19	1.32
Total	256.1	269.2	507.1	248.2	255.8	183.9	117.2	694.4

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 76	Reg. 77	Reg. 78	Reg. 80	Spc. 1	Spc. 2	Spc. 3	Spc. 4
Protozoa	113.0	98.0	191.5	25.1	69.3	6.4	17.8	8.8
Coelenterata	0.9	5.4	5.5	8.0	15.4	5.8	4.5	9.9
Chaetognatha	5.2	10.6	3.7	17.3	14.8	5.2	12.9	18.0
Misc. Worms	2.0	1.0	3.7	1.0	1.8	0.8	1.4	0.6
Copepoda	21.5	133.1	101.8	66.8	134.6	29.0	61.8	102.9
Ostracoda	0.2	-	-	3.4	16.0	1.1	6.4	1.2
Mysidacea	9.2	13.9	0.2	-	-	-	-	-
Amphipoda	0.9	0.5	0.2	1.2	1.3	0.7	0.9	0.3
Isopoda	0.2	-	-	-	-	-	-	-
Stomatopoda	0.3	0.2	0.6	-	-	-	-	-
Euphausiacea	-	-	0.2	4.8	6.0	2.4	5.0	1.9
Shrimp	5.5	4.5	2.1	1.6	1.7	0.5	0.7	0.7
Crabs	7.5	3.8	1.0	0.2	0.2	-	0.4	0.1
Misc. Crustaceans	22.4	81.3	67.3	1.1	0.7	0.6	0.8	1.2
Pteropoda	-	-	0.2	0.5	4.7	0.1	0.9	0.3
Misc. Mollusca	0.3	4.5	5.7	2.5	1.8	1.2	1.4	1.8
Larvacea	250.9	92.4	127.6	5.3	4.8	1.2	9.4	13.6
Misc. Tunicata	0.2	-	-	1.2	-	0.2	0.7	1.0
Leptocardia	1.25	-	0.11	0.07	0.02	-	0.07	-
Misc. Organisms	289.1	101.6	472.6	9.9	4.7	17.7	15.9	7.7
Subtotal	730.6	550.8	984.0	150.0	277.8	72.9	141.0	170.0
Fish Eggs	9.54	10.98	2.54	0.15	0.07	0.05	0.03	0.61
Fish Larvae	0.30	0.15	0.14	0.50	1.95	0.48	1.58	1.16
Total	740.4	561.9	986.7	150.6	279.8	73.4	142.6	171.8

Table 9.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Spc. 5	Spc. 6	Spc. 7	Spc. 8	Spc. 9
Protozoa	31.1	6.1	16.0	4.2	11.0
Coelenterata	7.8	4.2	2.1	2.6	3.2
Chaetognatha	8.2	5.6	2.1	0.4	4.7
Misc. Worms	1.4	0.4	0.1	0.3	0.7
Copepoda	68.5	21.8	10.4	18.7	49.8
Ostracoda	10.0	1.5	0.8	2.4	3.7
Mysidacea	-	-	-	-	-
Amphipoda	0.4	0.3	-	-	0.6
Isopoda	-	0.1	-	-	-
Stomatopoda	-	-	-	-	-
Euphausiacea	10.0	-	0.5	1.6	2.4
Shrimp	0.6	2.1	0.5	0.5	0.7
Crabs	-	0.4	-	0.1	1.5
Misc. Crustaceans	0.2	0.1	0.8	2.6	1.5
Pteropoda	0.7	0.3	0.3	0.3	3.4
Misc. Mollusca	1.7	0.7	0.2	1.2	0.1
Larvacea	6.8	6.3	0.7	0.2	0.7
Misc. Tunicata	1.8	0.8	0.4	0.2	-
Leptocardia	0.12	<0.01	<0.01	<0.01	0.07
Misc. Organisms	2.9	50.1	1.0	1.2	14.7
Subtotal	152.2	100.8	35.9	36.5	98.8
Fish Eggs	0.01	0.04	0.01	<0.01	0.16
Fish Larvae	0.38	0.45	0.22	0.31	0.88
Total	152.6	101.3	36.1	36.8	99.8

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler)

Run No. 1 Date April 18, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0755	0851	0947	1043	1139	1235	1331	1427
Position of Ship: (N. Lat.	28°54'	28°48'	28°39'	28°32'	28°23'	28°13'	28°03'	28°00'
(W. Long.	77°00'	77°00'	77°01'	77°00'	76°59'	77°00'	77°00'	77°00'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	3.6	-	-	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	28.6	10.7	14.3	10.7	7.2	-	3.6	7.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	3.6	3.6	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	7.2	3.6	14.3	10.7	3.6	-	3.6
Misc. Organisms	-	-	-	3.6	3.6	-	-	-
Subtotal	28.6	21.5	21.5	32.2	21.5	3.6	3.6	10.8
Fish Eggs	-	-	-	-	-	-	-	3.6
Fish Larvae	-	-	-	-	10.7	-	-	-
Total	28.6	21.5	21.5	32.2	32.2	3.6	3.6	14.4

Run No. 2 Date April 18, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1533	1629	1725	1821	1917	2013	2109	2205
Position of Ship: (N. Lat.	28°00'	28°02'	28°03'	28°03'	28°01'	28°01'	28°00'	27°58'
(W. Long.	77°01'	77°09'	77°16'	77°24'	77°34'	77°44'	77°56'	78°00'
Protozoa	6.9	-	-	-	-	3.4	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	-	-	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	13.8	3.4	6.9	-	10.3	24.1	13.8	6.9
Ostracoda	-	-	-	-	-	-	3.4	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	3.4	-	3.4	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	10.3	-	3.4	-	-	10.3	-	-
Misc. Organisms	3.4	-	-	-	-	-	3.4	3.4
Subtotal	37.8	3.4	13.7	-	10.3	37.8	20.6	10.3
Fish Eggs	3.4	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	41.2	3.4	13.7	-	10.3	37.8	20.6	10.3

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 3 Date April 19, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0053	0149	0245	0341	0437	0535	0631	0727
Position of Ship: (N. Lat.	27°53'	27°46'	27°40'	27°35'	27°29'	27°23'	27°17'	27°11'
(W. Long.	77°56'	77°51'	77°47'	77°43'	77°40'	77°34'	77°26'	77°19'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	3.2	3.2	-	-	-	-	-
Misc. Worms	-	3.2	3.2	-	-	-	-	-
Copepoda	3.2	-	9.5	9.5	19.0	15.8	12.6	22.1
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	3.2	-	-	-	-	3.2	3.2
Mollusca	-	-	-	-	3.2	-	-	3.2
Invertebrate Eggs	-	3.2	3.2	-	-	-	3.2	12.6
Misc. Organisms	3.2	3.2	9.5	6.3	3.2	3.2	6.3	15.8
Subtotal	6.4	16.0	28.6	15.8	25.4	19.0	25.3	56.9
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	6.4	16.0	28.6	15.8	25.4	19.0	25.3	56.9

Run No. 4 Date April 22-23, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2022	2119	2215	2312	0008	0104	0201	0258
Position of Ship: (N. Lat.	27°00'	27°00'	26°59'	26°58'	26°56'	26°56'	27°12'	27°08'
(W. Long.	79°18'	79°18'	79°24'	79°32'	79°41'	79°41'	79°54'	79°58'
Protozoa	-	-	-	-	-	6.1	-	-
Coelenterata	-	-	-	-	-	3.0	3.0	-
Chaetognatha	-	-	-	-	-	9.1	12.1	-
Misc. Worms	3.0	3.0	-	-	-	3.0	-	-
Copepoda	21.2	12.1	12.1	30.3	6.1	54.5	69.7	39.4
Ostracoda	-	-	-	-	3.0	3.0	30.3	3.0
Amphipoda	-	-	-	-	-	-	-	3.0
Shrimp	-	-	3.0	-	-	-	12.1	15.2
Crabs	-	-	-	-	-	-	3.0	-
Misc. Crustaceans	-	-	-	-	-	-	6.1	6.1
Mollusca	-	6.1	-	-	3.0	-	3.0	6.1
Invertebrate Eggs	-	-	-	3.0	27.3	6.1	12.1	3.0
Misc. Organisms	-	-	-	-	3.0	6.1	12.1	-
Subtotal	24.2	21.2	15.1	33.3	42.4	90.9	163.5	75.8
Fish Eggs	-	-	-	3.0	-	-	9.1	-
Fish Larvae	-	-	-	-	-	-	3.0	3.0
Total	24.2	21.2	15.1	36.3	42.4	90.9	175.6	78.8

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 5 Date April 23, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0621	0728	0835	0942	1049	1156	1303	1410
Position of Ship: (N. Lat.	27°10'	27°20'	27°22'	27°33'	27°40'	27°42'	27°43'	27°41'
(W. Long.	80°03'	80°04'	80°05'	80°04'	80°04'	79°58'	79°47'	79°42'
Protozoa	16.2	-	-	-	6.5	32.3	6.5	-
Coelenterata	-	-	-	-	-	3.2	-	-
Chaetognatha	3.2	16.2	6.5	9.7	3.2	-	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	42.0	45.2	71.1	87.2	19.4	19.4	22.6	3.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	3.2	-	-	-	-	-	-	-
Crabs	-	6.5	9.7	9.7	-	-	-	-
Misc. Crustaceans	19.4	12.9	6.5	6.5	3.2	3.2	3.2	6.5
Mollusca	-	6.5	-	-	-	-	-	-
Invertebrate Eggs	-	3.2	12.9	6.5	3.2	12.9	9.7	25.8
Misc. Organisms	16.2	25.8	42.0	25.8	25.8	6.5	16.2	-
Subtotal	100.2	116.3	148.7	145.4	61.3	77.5	58.2	35.5
Fish Eggs	6.5	3.2	3.2	6.5	6.5	19.4	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	106.7	119.5	151.9	151.9	67.8	96.9	58.2	35.5

Run No. 6 Date April 23-24, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1558	1705	1813	1920	2028	2135	2243	2350
Position of Ship: (N. Lat.	27°41'	27°44'	27°41'	27°40'	27°47'	27°53'	28°00'	28°00'
(W. Long.	79°41'	79°34'	79°23'	79°18'	79°16'	79°09'	79°01'	79°01'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	5.7	-	-	2.8	2.8	2.8	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	36.8	28.3	17.0	45.3	8.5	14.2	11.3	2.8
Ostracoda	-	-	-	-	-	-	-	2.8
Amphipoda	-	-	-	5.7	2.8	5.7	-	-
Shrimp	-	-	-	-	-	2.8	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	5.7	-	2.8
Mollusca	-	-	-	-	5.7	-	-	2.8
Invertebrate Eggs	8.5	8.5	-	17.0	8.5	14.2	19.8	17.0
Misc. Organisms	-	-	-	-	-	-	-	-
Subtotal	51.0	36.8	17.0	70.8	28.3	45.4	31.1	28.2
Fish Eggs	5.7	2.8	-	-	11.3	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	56.7	39.6	17.0	70.8	39.6	45.4	31.1	28.2

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Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 7 Date April 24, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0206	0310	0415	0519	0624	0728	0833	0938
Position of Ship: (N. Lat.	28°07'	28°13'	28°19'	28°19'	28°20'	28°20'	28°20'	28°20'
(W. Long.	79°07'	79°12'	79°26'	79°26'	79°30'	79°39'	79°48'	79°48'
Protozoa	-	-	2.7	2.7	2.7	-	2.7	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	2.7	-	-	-
Misc. Worms	-	-	-	-	-	-	2.7	-
Copepoda	13.5	27.0	21.6	13.5	24.3	16.2	24.3	13.5
Ostracoda	2.7	-	-	8.1	-	-	-	-
Amphipoda	-	-	-	2.7	-	-	-	-
Shrimp	-	2.7	-	-	-	2.7	-	2.7
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	2.7	-	-	-	2.7	-	-
Mollusca	2.7	2.7	2.7	2.7	-	-	5.4	-
Invertebrate Eggs	-	-	5.4	5.4	2.7	8.1	13.5	-
Misc. Organisms	-	2.7	-	2.7	-	-	-	-
Subtotal	18.9	37.8	32.4	37.8	32.4	29.7	48.6	16.2
Fish Eggs	-	-	-	-	-	-	-	2.7
Fish Larvae	-	-	-	-	-	-	-	-
Total	18.9	37.8	32.4	37.8	32.4	29.7	48.6	18.9

Run No. 8 Date April 24, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1132	1237	1341	1446	1550	1655	1759	1904
Position of Ship: (N. Lat.	28°20'	28°18'	28°20'	28°20'	28°24'	28°31'	28°37'	28°41'
(W. Long.	80°04'	80°10'	80°20'	80°32'	80°30'	80°26'	80°22'	80°26'
Protozoa	3.2	3.2	-	-	6.4	6.4	16.0	9.6
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	9.6	9.6	25.7	3.2	-
Misc. Worms	-	-	-	-	-	3.2	-	-
Copepoda	22.5	83.5	44.9	12.8	54.6	96.3	77.0	77.0
Ostracoda	-	-	-	-	-	-	3.2	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	3.2	22.5	22.5	19.3	-
Crabs	-	-	-	-	51.4	51.4	32.1	3.2
Misc. Crustaceans	-	-	3.2	6.4	3.2	3.2	25.7	28.9
Mollusca	-	-	-	-	-	-	-	22.5
Invertebrate Eggs	6.4	22.5	-	-	-	-	9.6	-
Misc. Organisms	9.6	-	-	3.2	3.2	41.7	35.3	25.7
Subtotal	41.7	109.2	48.1	35.2	150.9	250.4	221.4	166.9
Fish Eggs	3.2	32.1	-	-	-	9.6	22.5	12.8
Fish Larvae	-	-	-	-	-	-	-	-
Total	44.9	141.3	48.1	35.2	150.9	260.0	243.9	179.7

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 9 Date April 24-25, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2037	2141	2246	2350	0055	0159	0304	0408
Position of (N. Lat.	28°55'	29°00'	29°00'	29°00'	29°02'	29°03'	29°02'	29°00'
Ship: (W. Long.	80°31'	80°33'	80°25'	80°17'	80°08'	80°04'	79°57'	79°51'
Protozoa	10.4	17.3	10.4	3.5	-	3.5	-	3.5
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	3.5	3.5	-	6.9	10.4	3.5	3.5
Misc. Worms	-	-	-	-	-	3.5	-	-
Copepoda	512.1	193.8	328.7	166.1	27.7	83.0	13.8	20.8
Ostracoda	6.9	-	17.3	13.8	3.5	13.8	-	-
Amphipoda	3.5	3.5	10.4	10.4	13.8	3.5	-	-
Shrimp	13.8	27.7	13.8	6.9	3.5	3.5	-	-
Crabs	90.0	72.7	51.9	17.3	-	10.4	-	-
Misc. Crustaceans	515.5	986.1	176.5	10.4	10.4	6.9	-	-
Mollusca	17.3	6.9	17.3	-	6.9	3.5	3.5	6.9
Invertebrate Eggs	6.9	-	10.4	13.8	13.8	27.7	3.5	3.5
Misc. Organisms	31.1	31.1	24.2	-	17.3	-	-	-
Subtotal	1207.5	1342.6	664.4	242.2	103.8	169.7	24.3	38.2
Fish Eggs	17.3	34.6	24.2	13.8	6.9	3.5	-	-
Fish Larvae	-	-	-	-	-	3.5	-	-
Total	1224.8	1377.2	688.6	256.0	110.7	176.7	24.3	38.2

Run No. 10 Date April 25, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0632	0735	0838	0941	1044	1147	1250	1354
Position of (N. Lat.	29°01'	29°04'	29°01'	29°00'	29°00'	29°02'	29°10'	29°21'
Ship: (W. Long.	79°47'	79°43'	79°36'	79°27'	79°26'	79°26'	79°28'	79°31'
Protozoa	-	6.1	6.1	-	3.0	12.2	21.4	3.0
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	6.1	-	-	3.0	-	-
Misc. Worms	3.0	-	-	-	-	-	-	-
Copepoda	48.8	18.3	48.8	30.5	9.2	12.2	12.2	15.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	3.0	-	-	-	-	-	-	-
Crabs	9.2	-	6.1	-	-	3.0	-	-
Misc. Crustaceans	39.6	27.4	24.4	3.0	-	6.1	-	3.0
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	6.1	3.0	6.1	-	-	9.2
Misc. Organisms	3.0	12.2	3.0	12.2	3.0	9.2	3.0	-
Subtotal	106.6	64.0	100.6	48.7	21.3	45.7	36.6	30.4
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	106.6	64.0	100.6	48.7	21.3	45.7	36.6	30.4

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 11 Date April 25, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1522	1627	1732	1837	1942	2047	2152	2257
Position of Ship: (N. Lat.	29°36'	29°40'	29°41'	29°45'	29°42'	29°40'	29°40'	29°46'
(W. Long.	79°36'	79°37'	79°38'	79°44'	79°51'	79°59'	79°59'	80°06'
Protozoa	3.4	3.4	6.7	3.4	-	20.2	6.7	-
Coelenterata	-	-	-	-	-	3.4	-	-
Chaetognatha	-	-	6.7	-	3.4	-	-	6.7
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	33.7	6.7	50.6	47.2	27.0	23.6	23.6	74.1
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	3.4	-	-	-	-	-	-	-
Shrimp	-	-	-	-	3.4	-	3.4	-
Crabs	-	-	-	-	-	3.4	3.4	-
Misc. Crustaceans	20.2	-	6.7	6.7	13.5	-	-	6.7
Mollusca	3.4	-	-	-	3.4	-	-	-
Invertebrate Eggs	6.7	-	-	-	6.7	27.0	10.1	13.5
Misc. Organisms	10.1	10.1	-	6.7	6.7	16.8	6.7	20.2
Subtotal	80.9	20.2	70.7	64.0	64.1	94.4	53.9	121.2
Fish Eggs	3.4	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	84.3	20.2	70.7	64.0	64.1	94.4	53.9	121.2

Run No. 12 Date April 26, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0033	0137	0240	0344	0447	0550	0653	0757
Position of Ship: (N. Lat.	29°43'	29°40'	29°40'	29°41'	29°41'	29°41'	29°40'	29°41'
(W. Long.	80°14'	80°23'	80°26'	80°34'	80°37'	80°38'	80°45'	80°49'
Protozoa	6.6	13.2	16.6	3.3	6.6	3.3	-	6.6
Coelenterata	-	6.6	-	-	-	-	-	-
Chaetognatha	6.6	3.3	9.9	-	3.3	9.9	6.6	19.9
Misc. Worms	-	9.9	6.6	-	-	-	-	-
Copepoda	89.4	92.7	182.0	450.2	268.1	274.7	172.1	122.5
Ostracoda	6.6	-	-	26.5	9.9	16.6	3.3	-
Amphipoda	-	-	-	-	-	-	3.3	-
Shrimp	16.6	6.6	-	26.5	-	-	3.3	-
Crabs	3.3	3.3	6.6	23.2	3.3	9.9	29.8	26.5
Misc. Crustaceans	13.2	3.3	16.6	29.8	16.6	13.2	23.2	13.2
Mollusca	3.3	3.3	-	-	-	-	3.3	-
Invertebrate Eggs	9.9	6.6	3.3	3.3	-	-	-	3.3
Misc. Organisms	16.6	3.3	13.2	46.3	39.7	26.5	3.3	9.9
Subtotal	172.1	152.1	254.8	609.1	347.5	354.1	248.2	201.9
Fish Eggs	9.9	6.6	33.1	13.2	29.8	23.2	33.1	13.2
Fish Larvae	-	-	-	-	-	-	-	-
Total	182.0	158.7	287.9	622.3	377.3	377.3	281.3	215.1

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 13 Date April 26, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0912	1015	1119	1222	1325	1428	1531	1635
Position of Ship: (N. Lat.	29°40'	29°42'	29°49'	30°00'	30°06'	30°16'	30°20'	30°20'
(W. Long.	81°02'	81°08'	81°09'	81°13'	81°15'	81°19'	81°18'	81°11'
Protozoa	48.7	62.0	17.7	17.7	-	17.7	13.3	4.4
Coelenterata	-	4.4	-	-	-	-	-	-
Chaetognatha	8.9	-	-	8.9	13.3	8.9	13.3	8.9
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	177.2	93.0	93.0	101.9	128.5	75.3	17.7	26.6
Ostracoda	8.9	-	-	-	-	4.4	4.4	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	8.9	-	-	-	-	-	-
Crabs	17.7	4.4	26.6	17.7	84.2	48.7	17.7	62.0
Misc. Crustaceans	22.2	8.9	22.2	13.3	4.4	53.2	57.6	141.8
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	4.4	-	4.4	-	-	-
Misc. Organisms	-	13.3	-	35.4	26.6	4.4	4.4	13.3
Subtotal	283.6	194.9	163.9	194.9	261.4	212.6	128.4	257.0
Fish Eggs	8.9	4.4	-	13.3	13.3	-	31.0	22.2
Fish Larvae	-	-	-	-	-	-	-	-
Total	292.5	199.3	163.9	208.2	274.7	212.6	159.4	279.2

Run No. 14 Date April 26-27, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1817	1921	2023	2127	2230	2334	0037	0141
Position of Ship: (N. Lat.	30°21'	30°21'	30°21'	30°20'	30°19'	30°21'	30°22'	30°22'
(W. Long.	80°57'	80°50'	80°39'	80°35'	80°23'	80°12'	80°11'	80°02'
Protozoa	-	-	-	-	4.8	-	9.5	4.8
Coelenterata	-	4.8	-	-	-	-	-	-
Chaetognatha	-	9.5	14.3	9.5	-	4.8	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	133.6	186.0	357.8	310.0	353.0	133.6	186.0	33.4
Ostracoda	-	-	-	-	-	4.8	-	4.8
Amphipoda	-	-	4.8	9.5	4.8	-	-	-
Shrimp	-	38.2	157.4	71.6	47.1	4.8	14.3	-
Crabs	19.1	23.8	4.8	14.3	23.8	-	19.1	9.5
Misc. Crustaceans	38.2	85.9	-	9.5	-	-	4.8	4.8
Mollusca	-	-	-	4.8	-	4.8	9.5	-
Invertebrate Eggs	-	-	4.8	9.5	-	4.8	4.8	66.8
Misc. Organisms	-	-	38.2	28.6	4.8	19.1	23.8	4.8
Subtotal	190.9	348.2	582.1	467.3	438.3	176.7	271.8	128.9
Fish Eggs	4.8	4.8	9.5	28.6	23.8	19.1	33.4	-
Fish Larvae	-	-	-	-	4.8	-	-	-
Total	195.7	353.0	591.6	495.9	466.9	195.8	305.2	128.9

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 15 Date April 27, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0307	0411	0514	0618	0721	0825	0928	1032
Position of Ship: (N. Lat.	30°19'	30°23'	30°25'	30°21'	30°20'	30°29'	30°40'	30°49'
(W. Long.	79°51'	79°47'	79°38'	79°30'	79°27'	79°22'	79°19'	79°18'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	-	-	6.8	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	74.2	20.2	13.5	13.5	60.8	6.8	27.0	6.8
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	40.5	54.0	13.5	20.2	-	27.0	6.8	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	6.8	-	13.5	40.5	-	6.8	-	-
Misc. Organisms	-	6.8	6.8	6.8	-	-	6.8	27.0
Subtotal	121.5	81.0	47.3	81.0	60.8	40.6	47.4	33.8
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	121.5	81.0	47.3	81.0	60.8	40.6	47.4	33.8

Run No. 16 Date April 27, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1227	1330	1433	1536	1639	1742	1845	1948
Position of Ship: (N. Lat.	30°58'	31°00'	31°00'	31°00'	31°00'	31°03'	31°06'	31°06'
(W. Long.	79°16'	79°15'	79°21'	79°31'	79°39'	79°39'	79°41'	79°48'
Protozoa	2.8	-	2.8	-	16.5	8.2	2.8	8.2
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	2.8	5.5	2.8	11.0	5.5	13.8	11.0
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	11.0	19.2	24.8	49.5	46.8	55.0	66.0	121.0
Ostracoda	-	-	-	-	-	-	2.8	2.8
Amphipoda	-	-	-	-	2.8	-	-	-
Shrimp	-	-	-	-	-	-	2.8	-
Crabs	-	2.8	2.8	-	-	-	-	2.8
Misc. Crustaceans	-	-	-	-	-	5.5	5.5	13.8
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	8.2	2.8	-	5.5	30.2	11.0	60.5	5.5
Misc. Organisms	5.5	2.8	5.5	2.8	-	-	5.5	8.2
Subtotal	27.5	30.4	41.4	60.6	107.3	85.2	159.7	173.3
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	27.5	30.4	41.4	60.6	107.3	85.2	159.7	173.3

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 17 Date April 27-28, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2102	2205	2307	0010	0112	0215	0317	0420
Position of Ship: (N. Lat.	31°03'	31°02'	31°00'	30°59'	31°00'	31°00'	31°00'	31°00'
(W. Long.	79°57'	79°59'	80°08'	80°18'	80°24'	80°32'	80°45'	80°51'
Protozoa	-	-	-	-	4.0	4.0	-	-
Coelenterata	-	-	-	4.0	-	-	-	4.0
Chaetognatha	-	-	4.0	12.1	8.1	8.1	4.0	12.1
Misc. Worms	8.1	-	-	4.0	-	4.0	-	-
Copepoda	113.1	76.8	84.8	145.4	149.5	60.6	56.6	88.9
Ostracoda	-	-	-	8.1	-	20.2	12.1	-
Amphipoda	-	-	-	-	-	8.1	8.1	8.1
Shrimp	16.2	4.0	-	-	-	4.0	-	16.2
Crabs	-	4.0	12.1	16.2	16.2	4.0	-	12.1
Misc. Crustaceans	-	12.1	12.1	8.1	32.3	24.2	8.1	28.3
Mollusca	-	-	-	4.0	-	-	-	-
Invertebrate Eggs	12.1	4.0	4.0	-	-	-	-	-
Misc. Organisms	4.0	8.1	-	8.1	8.1	4.0	8.1	4.0
Subtotal	153.5	109.0	117.0	210.0	218.2	141.2	97.0	173.7
Fish Eggs	-	-	8.1	8.1	4.0	16.2	24.2	12.1
Fish Larvae	-	-	-	-	-	4.0	-	-
Total	153.5	109.0	125.1	218.1	222.2	161.4	121.2	185.8

Run No. 18 Date May 4-5, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1710	1807	1904	2001	2058	2155	2252	2349
Position of Ship: (N. Lat.	31°08'	31°13'	31°17'	31°22'	31°24'	31°32'	31°39'	31°43'
(W. Long.	81°12'	81°05'	80°59'	80°54'	80°54'	80°48'	80°40'	80°37'
Protozoa	-	-	-	10.1	3.4	3.4	13.5	-
Coelenterata	3.4	-	-	-	-	-	-	-
Chaetognatha	3.4	-	-	20.2	6.7	16.8	10.1	16.8
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	134.8	40.4	134.8	417.9	364.0	404.4	262.9	161.8
Ostracoda	-	-	-	3.4	3.4	-	-	-
Amphipoda	-	-	-	6.8	3.4	13.5	10.1	3.4
Shrimp	6.7	-	-	-	10.1	10.1	-	-
Crabs	13.5	-	6.7	16.8	3.4	23.6	33.7	20.2
Misc. Crustaceans	67.4	198.8	107.8	67.4	64.0	20.2	3.4	-
Mollusca	-	-	-	3.4	-	3.4	-	-
Invertebrate Eggs	-	-	-	3.4	10.1	10.1	-	-
Misc. Organisms	-	-	-	-	3.4	10.1	6.7	3.4
Subtotal	229.2	239.2	249.3	549.4	471.9	515.6	340.4	205.6
Fish Eggs	-	47.2	77.5	20.2	40.4	13.5	13.5	13.5
Fish Larvae	-	-	-	-	-	-	3.4	-
Total	229.2	286.4	326.8	569.6	512.3	529.1	357.3	219.1

Table 10--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 19 Date May 5, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0110	0206	0302	0358	0455	0551	0647	0743
Position of Ship: (N. Lat.	31°41'	31°39'	31°39'	31°39'	31°37'	31°37'	31°35'	31°35'
(W. Long.	80°22'	80°14'	80°10'	80°00'	80°49'	80°49'	79°44'	79°34'
Protozoa	-	-	-	-	-	-	-	7.9
Coelenterata	-	4.0	-	-	-	-	7.9	-
Chaetognatha	7.9	4.0	-	-	-	-	-	7.9
Misc. Worms	-	-	-	4.0	-	-	-	-
Copepoda	75.2	67.3	39.6	103.0	253.4	281.2	269.3	301.0
Ostracoda	7.9	-	-	-	4.0	-	-	-
Amphipoda	7.9	7.9	-	-	-	-	4.0	-
Shrimp	7.9	-	7.9	-	7.9	-	4.0	4.0
Crabs	-	19.8	-	4.0	-	-	-	-
Misc. Crustaceans	4.0	4.0	15.8	11.9	27.7	4.0	4.0	-
Mollusca	-	-	-	-	-	-	4.0	-
Invertebrate Eggs	-	-	-	19.8	19.8	23.8	35.6	19.8
Misc. Organisms	-	4.0	11.9	7.9	35.6	19.8	7.9	4.0
Subtotal	110.8	111.0	75.2	150.6	348.4	328.8	336.7	344.6
Fish Eggs	7.9	31.7	-	15.8	7.9	7.9	4.0	7.9
Fish Larvae	-	4.0	-	-	-	-	-	-
Total	118.7	146.7	75.2	166.4	356.3	336.7	340.7	352.5

Run No. 20 Date May 5, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0853	0949	1045	1141	1238	1334	1430	1526
Position of Ship: (N. Lat.	31°36'	31°40'	31°40'	31°38'	31°34'	31°31'	31°31'	31°31'
(W. Long.	79°25'	79°22'	79°16'	79°07'	78°59'	78°49'	78°41'	78°41'
Protozoa	-	3.1	-	-	-	3.1	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	3.1	-	3.1	-	-	-	3.1	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	15.6	28.1	31.2	25.0	37.4	34.3	31.2	15.6
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	3.1	3.1	-	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	3.1	3.1	6.2	3.1	-	3.1	9.4	-
Misc. Organisms	-	-	-	3.1	-	3.1	-	-
Subtotal	24.9	37.4	40.5	31.2	37.4	43.6	43.7	15.6
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	24.9	37.4	40.5	31.2	37.4	43.6	43.7	15.6

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 21 Date May 5-6, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1650	1747	1844	1942	2039	2136	2233	2331
Position of (N. Lat.	31°39'	31°40'	31°42'	31°43'	31°47'	31°51'	31°55'	31°57'
Ship: (W. Long.	78°45'	78°51'	78°57'	78°59'	79°01'	79°06'	79°13'	79°17'
Protozoa	-	-	8.2	-	-	-	28.7	4.1
Coelenterata	4.1	-	4.1	4.1	-	4.1	8.2	4.1
Chaetognatha	12.3	24.6	8.2	-	-	12.3	16.4	8.2
Misc. Worms	-	-	-	-	-	-	4.1	-
Copepoda	36.9	16.4	45.1	53.3	24.6	20.5	274.7	123.0
Ostracoda	-	-	-	-	-	-	16.4	16.4
Amphipoda	-	-	-	-	-	4.1	-	-
Shrimp	-	-	-	-	-	-	16.4	24.6
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	4.1	-	4.1	8.2	8.2	8.2
Mollusca	4.1	-	-	-	4.1	-	-	4.1
Invertebrate Eggs	-	4.1	4.1	45.1	8.2	4.1	45.2	24.6
Misc. Organisms	-	-	-	-	4.1	16.4	61.5	16.4
Subtotal	57.4	45.1	73.8	102.5	45.1	69.7	479.8	233.7
Fish Eggs	-	-	-	4.1	-	-	-	4.1
Fish Larvae	-	-	-	-	-	-	-	-
Total	57.4	45.1	73.8	106.6	45.1	69.7	479.8	237.8

Run No. 22 Date May 6, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0103	0159	0255	0352	0446	0542	0638	0736
Position of (N. Lat.	32°01'	32°08'	32°13'	32°13'	32°16'	32°22'	32°27'	32°31'
Ship: (W. Long.	79°26'	79°29'	79°33'	79°33'	79°39'	79°44'	79°48'	79°45'
Protozoa	-	3.4	6.8	-	6.8	-	-	6.8
Coelenterata	6.8	-	6.8	-	3.4	6.8	3.4	-
Chaetognatha	-	23.8	20.4	10.2	30.6	17.0	6.8	6.8
Misc. Worms	3.4	-	-	-	-	-	3.4	-
Copepoda	251.6	132.6	102.0	81.6	102.0	95.2	268.6	159.8
Ostracoda	-	10.2	6.8	3.4	3.4	13.6	10.2	10.2
Amphipoda	6.8	-	-	-	-	-	-	-
Shrimp	23.8	-	3.4	-	3.4	-	-	6.8
Crabs	3.4	-	6.8	-	3.4	20.4	37.4	10.2
Misc. Crustaceans	20.4	13.6	3.4	6.8	-	10.2	27.2	-
Mollusca	-	-	-	-	-	-	3.4	3.4
Invertebrate Eggs	51.0	3.4	6.8	3.4	-	-	-	-
Misc. Organisms	13.6	10.2	10.2	10.2	17.0	3.4	10.2	6.8
Subtotal	380.8	197.2	173.4	115.6	170.0	166.6	370.6	210.8
Fish Eggs	10.2	6.8	6.8	3.4	3.4	-	20.4	17.0
Fish Larvae	-	3.4	-	-	-	-	-	-
Total	391.0	207.4	180.2	119.0	173.4	166.6	391.0	227.8

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 23 Date May 6, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0843	0939	1035	1131	1227	1324	1420	1517
Position of Ship: (N. Lat.	32°38'	32°43'	32°46'	32°52'	32°55'	32°50'	32°45'	32°40'
(W. Long.	79°37'	79°31'	79°27'	79°19'	79°14'	79°08'	79°02'	78°58'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	3.5	-	-	-	3.5	-	-
Chaetognatha	7.0	-	10.5	-	3.5	21.1	14.0	21.1
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	80.7	52.6	52.6	91.3	235.2	161.5	119.3	73.7
Ostracoda	-	3.5	-	-	-	10.5	-	3.5
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	3.5	3.5	-	-	-	-	-
Crabs	21.1	-	14.0	3.5	-	3.5	7.0	14.0
Misc. Crustaceans	14.0	17.6	10.5	-	-	-	-	10.5
Mollusca	3.5	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	3.5	-	-	3.5	3.5
Misc. Organisms	3.5	3.5	-	-	-	10.5	3.5	21.1
Subtotal	129.8	84.2	91.1	98.3	238.7	210.6	147.3	147.4
Fish Eggs	7.0	7.0	3.5	3.5	7.0	-	3.5	10.5
Fish Larvae	-	-	-	-	-	-	-	-
Total	136.8	91.2	94.6	101.8	245.7	210.6	150.8	157.9

Run No. 24 Date May 6, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1629	1727	1825	1923	2021	2119	2217	2315
Position of Ship: (N. Lat.	32°34'	32°31'	32°31'	32°30'	32°25'	32°18'	32°14'	32°14'
(W. Long.	78°50'	78°44'	78°42'	78°40'	78°37'	78°30'	78°24'	78°24'
Protozoa	-	-	-	-	3.8	-	-	-
Coelenterata	-	-	-	-	7.6	-	3.8	11.5
Chaetognatha	-	3.8	19.1	11.5	11.5	11.5	19.1	7.6
Misc. Worms	-	-	-	-	-	-	-	3.8
Copepoda	110.8	68.8	145.2	156.6	168.1	179.5	206.3	152.8
Ostracoda	-	3.8	-	3.8	-	-	-	-
Amphipoda	-	-	-	-	3.8	-	-	3.8
Shrimp	-	-	-	15.3	7.6	15.3	22.9	-
Crabs	3.8	3.8	-	-	-	-	3.8	3.8
Misc. Crustaceans	7.6	11.5	11.5	7.6	3.8	-	11.5	-
Mollusca	3.8	3.8	11.5	-	3.8	3.8	-	-
Invertebrate Eggs	-	7.6	3.8	26.7	7.6	7.6	11.5	3.8
Misc. Organisms	-	-	7.6	15.3	34.4	-	22.9	-
Subtotal	126.0	103.1	198.7	236.8	252.0	217.7	301.8	187.1
Fish Eggs	7.6	-	-	-	-	3.8	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	133.6	103.1	198.7	236.8	252.0	221.5	301.8	187.1

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 25 Date May 7, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0148	0244	0340	0436	0533	0629	0725	0822
Position of Ship: (N. Lat.	32°08'	32°06'	32°08'	32°12'	32°18'	32°23'	32°26'	32°31'
(W. Long.	78°12'	78°05'	77°57'	77°49'	77°41'	77°35'	77°34'	77°39'
Protozoa	4.5	-	-	-	-	-	-	-
Coelenterata	13.4	-	-	-	9.0	-	-	-
Chaetognatha	13.4	-	-	-	-	4.5	4.5	-
Misc. Worms	4.5	-	-	-	-	-	-	-
Copepoda	71.7	44.8	89.6	134.4	107.5	103.0	246.4	71.7
Ostracoda	4.5	-	-	-	-	-	4.5	4.5
Amphipoda	-	4.5	-	-	-	-	-	-
Shrimp	4.5	-	4.5	-	17.9	-	13.4	4.5
Crabs	4.5	-	-	-	-	4.5	-	4.5
Misc. Crustaceans	-	-	-	4.5	9.0	-	4.5	-
Mollusca	9.0	-	-	-	-	-	4.5	-
Invertebrate Eggs	4.5	-	-	4.5	-	4.5	-	-
Misc. Organisms	-	4.5	-	4.5	9.0	-	4.5	-
Subtotal	134.5	53.8	94.1	147.9	152.4	116.5	282.3	85.2
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	134.5	53.8	94.1	147.9	152.4	116.5	282.3	85.2

Run No. 26 Date May 7, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0956	1052	1148	1244	1340	1436	1532	1628
Position of Ship: (N. Lat.	32°36'	32°38'	32°45'	32°51'	32°53'	32°57'	33°01'	33°04'
(W. Long.	77°47'	77°53'	77°59'	78°06'	78°06'	78°09'	78°17'	78°23'
Protozoa	-	12.1	-	3.0	6.1	9.1	-	-
Coelenterata	-	-	-	3.0	6.1	3.0	12.1	-
Chaetognatha	-	6.1	6.1	12.1	6.1	6.1	6.1	12.1
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	78.8	66.7	45.4	106.0	121.2	212.1	333.3	236.3
Ostracoda	-	-	-	3.0	3.0	-	3.0	3.0
Amphipoda	3.0	-	-	-	3.0	-	-	-
Shrimp	6.1	6.1	-	3.0	-	-	-	6.1
Crabs	-	-	-	-	-	3.0	9.1	18.2
Misc. Crustaceans	-	3.0	-	-	15.2	42.4	9.1	3.0
Mollusca	-	6.1	-	-	-	3.0	-	3.0
Invertebrate Eggs	30.3	6.1	3.0	18.2	15.2	3.0	3.0	-
Misc. Organisms	3.0	12.1	-	3.0	-	9.1	9.1	-
Subtotal	121.2	118.3	54.5	151.3	175.9	290.8	384.8	281.7
Fish Eggs	-	-	-	-	-	12.1	6.1	18.2
Fish Larvae	-	-	3.0	-	-	-	-	-
Total	121.2	118.3	57.5	151.3	175.9	302.9	390.9	299.9

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 27 Date May 7-8, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1733	1829	1925	2021	2118	2214	2310	0007
Position of Ship: (N. Lat.	33°09'	33°15'	33°20'	33°24'	33°31'	32°32'	33°32'	33°34'
(W. Long.	78°28'	78°35'	78°41'	78°45'	78°53'	78°51'	78°40'	78°29'
Protozoa	4.4	8.8	-	4.4	-	4.4	8.8	8.8
Coelenterata	-	4.4	-	-	-	-	-	-
Chaetognatha	8.8	30.7	13.2	35.1	8.8	30.7	30.7	22.0
Misc. Worms	-	-	-	-	-	8.8	4.4	-
Copepoda	215.1	987.8	465.3	272.2	338.0	785.8	772.6	592.6
Ostracoda	-	4.4	-	-	-	-	-	-
Amphipoda	4.4	-	4.4	-	4.4	-	4.4	4.4
Shrimp	-	-	8.8	4.4	4.4	22.0	8.8	17.6
Crabs	-	8.8	39.5	43.9	22.0	43.9	43.9	22.0
Misc. Crustaceans	-	8.8	13.2	8.8	259.0	250.2	22.0	39.5
Mollusca	-	-	-	8.8	4.4	4.4	-	4.4
Invertebrate Eggs	-	-	8.8	-	-	4.4	-	-
Misc. Organisms	4.4	22.0	-	4.4	-	13.2	22.0	17.6
Subtotal	237.1	1075.7	553.2	382.0	641.0	1167.8	917.6	728.9
Fish Eggs	8.8	43.9	43.9	13.2	4.4	17.6	13.2	22.0
Fish Larvae	-	-	-	-	-	-	-	-
Total	245.9	1119.6	597.1	395.2	645.4	1185.4	930.8	750.9

Run No. 28 Date May 8, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0131	0226	0321	0416	0511	0606	0701	0756
Position of Ship: (N. Lat.	33°36'	33°36'	33°36'	33°36'	33°31'	33°25'	33°23'	33°17'
(W. Long.	78°19'	78°10'	78°00'	77°54'	77°47'	77°39'	77°36'	77°29'
Protozoa	3.1	-	-	-	-	3.1	-	6.2
Coelenterata	-	-	-	-	3.1	3.1	-	12.4
Chaetognatha	3.1	18.6	12.4	15.5	21.7	27.9	18.6	3.1
Misc. Worms	9.3	-	-	-	-	-	-	-
Copepoda	282.1	176.7	161.2	136.4	303.8	573.5	381.3	108.5
Ostracoda	-	3.1	-	-	12.4	-	-	-
Amphipoda	6.2	-	9.3	-	3.1	-	3.1	-
Shrimp	24.8	9.3	21.7	6.2	-	-	3.1	-
Crabs	9.3	6.2	15.5	9.3	6.2	3.1	9.3	3.1
Misc. Crustaceans	65.1	74.4	71.3	55.8	65.1	12.4	9.3	3.1
Mollusca	3.1	-	3.1	-	-	-	-	6.2
Invertebrate Eggs	3.1	3.1	15.5	-	-	-	3.1	-
Misc. Organisms	-	-	3.1	-	3.1	-	15.5	9.3
Subtotal	409.2	291.4	313.1	223.2	418.5	623.1	443.3	151.9
Fish Eggs	6.2	12.4	3.1	-	24.8	24.8	21.7	27.9
Fish Larvae	-	-	-	-	-	-	-	-
Total	415.4	303.8	316.2	223.2	443.3	647.9	465.0	179.8

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 29 Date May 8, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0901	0956	1052	1147	1243	1338	1434	1529
Position of (N. Lat.	33°09'	33°08'	33°02'	32°58'	32°55'	32°55'	32°52'	32°46'
Ship: (W. Long.	77°21'	77°20'	77°15'	77°07'	77°04'	77°04'	76°57'	76°50'
Protozoa	-	-	4.1	12.3	-	4.1	32.9	-
Coelenterata	8.2	-	-	-	-	-	-	-
Chaetognatha	8.2	4.1	-	-	-	-	-	24.7
Misc. Worms	-	-	-	-	4.1	-	4.1	-
Copepoda	148.0	28.8	45.2	12.3	94.5	131.5	127.4	106.9
Ostracoda	-	-	-	-	4.1	16.4	-	-
Amphipoda	-	8.2	-	-	-	-	4.1	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	4.1
Misc. Crustaceans	4.1	16.4	-	-	-	4.1	4.1	-
Mollusca	-	-	-	-	4.1	-	4.1	-
Invertebrate Eggs	16.4	8.2	12.3	20.6	20.6	28.8	-	12.3
Misc. Organisms	4.1	4.1	-	-	4.1	-	-	-
Subtotal	189.0	69.8	61.6	45.2	131.5	184.9	176.7	148.0
Fish Eggs	20.6	28.8	-	-	-	-	-	8.2
Fish Larvae	-	-	-	-	-	-	-	4.1
Total	209.6	98.6	61.6	45.2	131.5	184.9	176.7	160.3

Run No. 30 Date May 8, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1632	1728	1824	1920	2016	2112	2208	2304
Position of (N. Lat.	32°43'	32°43'	32°54'	33°04'	33°15'	33°15'	33°16'	33°26'
Ship: (W. Long.	76°47'	76°47'	76°35'	76°28'	76°24'	76°24'	76°24'	76°26'
Protozoa	-	-	-	-	-	3.2	-	6.5
Coelenterata	-	-	-	6.5	3.2	9.8	-	3.2
Chaetognatha	-	-	9.8	3.2	22.8	9.8	13.0	16.2
Misc. Worms	-	-	-	-	-	-	3.2	3.2
Copepoda	3.2	13.0	29.2	107.2	68.2	39.0	68.2	104.0
Ostracoda	-	-	-	-	13.0	9.8	-	3.2
Amphipoda	6.5	-	3.2	-	-	-	9.8	-
Shrimp	3.2	3.2	-	-	-	3.2	9.8	3.2
Crabs	-	-	3.2	-	3.2	9.8	-	6.5
Misc. Crustaceans	-	3.2	-	-	3.2	3.2	-	6.5
Mollusca	3.2	3.2	-	-	-	-	3.2	6.5
Invertebrate Eggs	-	-	3.2	-	61.8	19.5	13.0	22.8
Misc. Organisms	-	-	-	3.2	3.2	-	3.2	9.8
Subtotal	16.1	22.6	48.6	120.1	178.6	107.3	123.4	191.6
Fish Eggs	3.2	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	19.3	22.6	48.6	120.1	178.6	107.3	123.4	191.6

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 31 Date May 8-9, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0012	0108	0204	0301	0357	0453	0549	0646
Position of Ship: (N. Lat.	33°30'	33°32'	33°34'	33°40'	33°43'	33°49'	33°53'	33°58'
(W. Long.	76°39'	76°50'	76°55'	76°57'	76°55'	76°59'	77°05'	77°13'
Protozoa	3.6	18.0	-	-	-	-	-	-
Coelenterata	-	10.8	-	-	-	7.2	-	-
Chaetognatha	7.2	10.8	7.2	-	3.6	14.4	18.0	3.6
Misc. Worms	-	-	-	-	3.6	3.6	3.6	-
Copepoda	169.7	144.4	90.2	57.8	72.2	238.3	476.5	148.0
Ostracoda	3.6	7.2	10.8	-	3.6	-	-	-
Amphipoda	-	3.6	3.6	-	-	-	-	-
Shrimp	7.2	18.0	14.4	10.8	10.8	10.8	-	-
Crabs	3.6	3.6	-	-	-	14.4	10.8	3.6
Misc. Crustaceans	7.2	10.8	3.6	-	3.6	-	7.2	3.6
Mollusca	-	10.8	3.6	10.8	-	-	3.6	-
Invertebrate Eggs	7.2	10.8	7.2	7.2	7.2	3.6	-	10.8
Misc. Organisms	-	43.3	7.2	21.7	14.4	3.6	7.2	3.6
Subtotal	209.3	292.1	147.8	108.3	119.0	295.9	526.9	173.2
Fish Eggs	-	-	-	-	3.6	-	10.8	7.2
Fish Larvae	-	-	-	-	-	-	-	-
Total	209.3	292.1	147.8	108.3	122.6	295.9	537.7	180.4

Run No. 32 Date May 9, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0749	0846	0943	1040	1137	1234	1331	1428
Position of Ship: (N. Lat.	34°02'	34°08'	34°11'	34°11'	34°13'	34°18'	34°24'	34°25'
(W. Long.	77°18'	77°24'	77°29'	77°29'	77°26'	77°17'	77°09'	77°02'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	12.4	33.1	8.3	-	8.3	4.1	8.3	-
Misc. Worms	-	-	4.1	-	-	-	-	-
Copepoda	529.9	190.4	33.1	29.0	37.3	74.5	99.4	74.5
Ostracoda	4.1	-	-	4.1	-	-	-	-
Amphipoda	-	-	-	-	-	4.1	-	-
Shrimp	12.4	-	4.1	-	4.1	-	-	-
Crabs	-	4.1	4.1	-	-	-	-	-
Misc. Crustaceans	8.3	-	4.1	8.3	-	8.3	20.7	4.1
Mollusca	-	-	-	4.1	-	-	-	-
Invertebrate Eggs	24.8	-	-	-	4.1	4.1	4.1	-
Misc. Organisms	-	78.7	33.1	16.6	-	-	20.7	-
Subtotal	591.9	306.3	90.9	62.1	53.8	95.1	153.2	78.6
Fish Eggs	4.1	-	-	-	-	-	12.4	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	596.0	306.3	90.9	62.1	53.8	95.1	165.6	78.6

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 33 Date May 9, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1555	1652	1750	1847	1945	2042	2140	2237
Position of Ship: (N. Lat.	34°30'	34°32'	34°27'	34°21'	34°19'	34°12'	34°04'	34°04'
(W. Long.	76°52'	76°50'	76°41'	76°33'	76°30'	76°23'	76°15'	76°14'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	3.3	-	3.3	3.3	3.3
Chaetognatha	-	-	-	-	6.5	3.3	6.5	9.8
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	3.3	-	-	22.8	35.9	169.5	78.2	29.3
Ostracoda	-	-	-	-	-	6.5	3.3	13.0
Amphipoda	-	-	-	-	3.3	3.3	-	-
Shrimp	-	-	-	3.3	-	9.8	-	-
Crabs	3.3	-	-	-	-	-	-	3.3
Misc. Crustaceans	-	3.3	-	3.3	6.5	-	9.8	3.3
Mollusca	-	-	-	-	-	3.3	3.3	-
Invertebrate Eggs	-	-	-	3.3	-	3.3	16.3	6.5
Misc. Organisms	-	-	-	-	-	-	6.5	6.5
Subtotal	6.6	3.3	-	36.0	52.2	202.3	127.2	75.0
Fish Eggs	-	-	-	-	3.3	3.3	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	6.6	3.3	-	36.0	55.5	205.6	127.2	75.0

Run No. 34 Date May 9-10, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2347	0043	0140	0236	0333	0429	0526	0622
Position of Ship: (N. Lat.	34°00'	33°53'	33°52'	33°52'	33°57'	34°03'	34°07'	34°09'
(W. Long.	76°07'	76°02'	75°59'	75°59'	75°58'	75°51'	75°40'	75°30'
Protozoa	-	-	-	3.7	-	11.0	3.7	-
Coelenterata	3.7	3.7	-	-	-	-	-	3.7
Chaetognatha	7.4	11.0	3.7	-	-	3.7	11.0	7.4
Misc. Worms	-	-	-	3.7	-	14.7	7.4	-
Copepoda	40.5	22.1	3.7	36.8	25.8	36.8	44.2	29.4
Ostracoda	3.7	3.7	3.7	3.7	-	-	-	-
Amphipoda	-	-	-	-	3.7	-	-	-
Shrimp	3.7	3.7	-	-	3.7	3.7	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	7.4	3.7	-	-	3.7	7.4	-	3.7
Mollusca	3.7	-	7.4	-	-	3.7	-	-
Invertebrate Eggs	3.7	18.4	3.7	11.0	-	36.8	3.7	7.4
Misc. Organisms	11.0	11.0	-	3.7	-	-	-	-
Subtotal	84.8	77.3	22.2	62.6	36.9	117.8	70.0	51.6
Fish Eggs	-	-	-	3.7	-	-	7.4	-
Fish Larvae	-	-	-	-	-	-	7.4	-
Total	84.8	77.3	22.2	66.3	36.9	117.8	84.8	51.6

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 35 Date May 10, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0725	0822	0919	1016	1113	1210	1307	1404
Position of Ship: (N. Lat.	34°10'	34°10'	34°10'	34°10'	34°18'	34°21'	34°24'	34°24'
(W. Long.	75°20'	75°20'	75°20'	75°20'	75°19'	75°25'	75°31'	75°33'
Protozoa	-	-	-	-	-	5.4	-	-
Coelenterata	-	-	-	2.7	-	-	-	-
Chaetognatha	8.1	5.4	5.4	2.7	-	2.7	5.4	2.7
Misc. Worms	-	-	-	-	-	-	-	2.7
Copepoda	32.3	21.5	21.5	24.2	2.7	-	26.9	13.4
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	8.1	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	2.7	-	-
Mollusca	-	-	-	-	-	-	2.7	-
Invertebrate Eggs	2.7	2.7	2.7	8.1	2.7	10.8	29.6	13.4
Misc. Organisms	2.7	-	-	-	-	-	-	-
Subtotal	53.9	29.6	29.6	37.7	5.4	21.6	64.6	32.2
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	53.9	29.6	29.6	37.7	5.4	21.6	64.6	32.2

Run No. 36 Date May 10, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1508	1603	1659	1754	1850	1945	2041	2136
Position of Ship: (N. Lat.	34°24'	34°30'	34°35'	34°40'	34°41'	34°42'	34°48'	34°52'
(W. Long.	75°33'	75°31'	75°38'	75°49'	75°52'	75°54'	76°00'	76°06'
Protozoa	-	-	3.3	-	-	-	-	3.3
Coelenterata	-	6.6	6.6	-	-	-	-	-
Chaetognatha	6.6	6.6	3.3	9.9	13.2	9.9	13.2	6.6
Misc. Worms	-	-	-	-	13.2	3.3	3.3	3.3
Copepoda	39.6	19.8	16.5	188.1	141.9	184.8	135.3	39.6
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	3.3	-	-	-	9.9	6.6
Crabs	-	-	-	-	3.3	3.3	-	6.6
Misc. Crustaceans	-	-	-	9.9	16.5	3.3	9.9	6.6
Mollusca	-	-	3.3	-	3.3	3.3	-	-
Invertebrate Eggs	3.3	13.2	26.4	-	-	6.6	13.2	6.6
Misc. Organisms	-	-	3.3	19.8	3.3	36.3	19.8	-
Subtotal	49.5	46.2	66.0	227.7	194.7	250.8	204.6	79.2
Fish Eggs	-	-	-	-	3.3	9.9	9.9	13.2
Fish Larvae	-	-	-	-	-	-	-	-
Total	49.5	46.2	66.0	227.7	198.0	260.7	214.5	92.4

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 37 Date May 10-11, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2303	0000	0057	0154	0251	0348	0445	0542
Position of (N. Lat.	34°55'	34°58'	35°00'	35°02'	35°03'	35°04'	35°04'	35°01'
Ship: (W. Long.	76°07'	75°58'	75°49'	75°44'	75°36'	75°25'	75°21'	75°13'
Protozoa	5.8	2.9	-	2.9	2.9	11.5	-	-
Coelenterata	2.9	-	-	-	2.9	-	-	-
Chaetognatha	-	-	5.8	2.9	-	-	-	5.8
Misc. Worms	-	-	2.9	-	2.9	-	-	-
Copepoda	20.2	69.1	40.3	66.2	83.5	60.5	20.2	224.6
Ostracoda	-	2.9	-	-	2.9	-	-	-
Amphipoda	-	-	-	-	5.8	-	-	-
Shrimp	11.5	11.5	8.6	8.6	8.6	11.5	2.9	8.6
Crabs	2.9	5.8	-	2.9	5.8	-	-	2.9
Misc. Crustaceans	5.8	11.5	2.9	-	28.8	2.9	-	2.9
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	2.9	-	-	-	-	-	-	8.6
Misc. Organisms	2.9	8.6	-	8.6	2.9	2.9	-	14.4
Subtotal	54.9	112.3	60.5	92.1	147.0	89.3	23.1	267.8
Fish Eggs	-	8.6	-	2.9	5.8	8.6	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	54.9	120.9	60.5	95.0	152.8	97.9	23.1	267.8

Run No. 38 Date May 11, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0649	0745	0841	0938	1034	1130	1226	1322
Position of (N. Lat.	34°57'	34°57'	35°00'	35°03'	35°04'	35°04'	35°09'	35°12'
Ship: (W. Long.	74°59'	74°59'	75°00'	75°04'	75°14'	75°26'	75°32'	75°34'
Protozoa	-	3.5	-	-	-	6.9	-	-
Coelenterata	-	3.5	-	-	-	-	-	-
Chaetognatha	6.9	-	-	6.9	-	10.4	10.4	-
Misc. Worms	-	-	-	-	20.8	-	-	-
Copepoda	45.0	6.9	3.5	100.3	48.4	107.3	45.0	27.7
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	3.5	-
Shrimp	3.5	3.5	3.5	-	-	-	-	-
Crabs	-	-	-	3.5	-	-	-	-
Misc. Crustaceans	-	-	-	3.5	6.9	10.4	-	-
Mollusca	-	-	-	-	-	3.5	-	-
Invertebrate Eggs	3.5	3.5	-	-	20.8	3.5	3.5	10.4
Misc. Organisms	6.9	3.5	-	10.4	3.5	-	-	-
Subtotal	65.8	24.4	7.0	124.6	100.4	142.0	62.4	38.1
Fish Eggs	3.5	-	-	3.5	-	6.9	6.9	3.5
Fish Larvae	-	-	-	-	-	-	-	-
Total	69.3	24.4	7.0	128.1	100.4	148.9	69.3	41.6

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Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 39 Date May 12, 1953								
Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1338	1433	1529	1624	1720	1815	1911	2006
Position of Ship: (N. Lat.	34°38'	34°36'	34°30'	34°24'	34°17'	34°10'	34°03'	34°01'
(W. Long.	74°45'	74°43'	74°38'	74°32'	74°28'	74°23'	74°19'	74°18'
Protozoa	3.0	-	-	5.9	3.0	-	5.9	-
Coelenterata	-	-	-	-	-	3.0	-	-
Chaetognatha	-	5.9	-	-	3.0	-	-	8.9
Misc. Worms	-	38.5	-	-	-	-	-	-
Copepoda	5.9	26.6	11.8	35.5	11.8	14.8	35.5	11.8
Ostracoda	-	-	-	-	-	-	3.0	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	3.0	3.0	-	-	-	-	-
Mollusca	-	-	5.9	3.0	-	-	5.9	-
Invertebrate Eggs	3.0	-	11.8	-	-	5.9	-	-
Misc. Organisms	-	-	-	3.0	11.8	-	-	-
Subtotal	11.9	74.0	32.5	47.4	29.6	23.7	50.3	20.7
Fish Eggs	-	-	-	-	5.9	-	3.0	-
Fish Larvae	-	14.8	-	-	-	-	-	-
Total	11.9	88.8	32.5	47.4	35.5	23.7	53.3	20.7

Run No. 40 Date May 12-13, 1953								
Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2119	2216	2313	0010	0107	0204	0301	0358
Position of Ship: (N. Lat.	34°01'	34°00'	33°54'	33°49'	33°44'	33°37'	33°33'	33°26'
(W. Long.	74°18'	74°19'	74°24'	74°31'	74°37'	74°45'	74°50'	74°49'
Protozoa	8.9	-	8.9	-	-	-	3.0	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	3.0	-	-	-	14.8	-	3.0	5.9
Misc. Worms	-	3.0	3.0	5.9	-	-	3.0	-
Copepoda	14.8	41.4	14.8	35.5	32.6	-	38.5	20.7
Ostracoda	-	3.0	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	5.9	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	-	-	-
Mollusca	-	-	-	8.9	17.8	-	3.0	3.0
Invertebrate Eggs	11.8	3.0	-	-	-	-	-	3.0
Misc. Organisms	-	3.0	11.8	-	3.0	-	-	-
Subtotal	38.5	53.4	44.4	50.3	68.2	-	50.5	32.6
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	38.5	53.4	44.4	50.3	68.2	-	50.5	32.6

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 41 Date May 13, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0513	0609	0705	0801	0857	0953	1049	1145
Position of Ship: (N. Lat.	33°08'	33°00'	33°00'	33°00'	32°54'	32°46'	32°39'	32°33'
(W. Long.	74°55'	75°00'	75°00'	75°00'	75°02'	75°10'	75°17'	75°24'
Protozoa	-	-	2.7	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	2.7	13.6	5.4	2.7	-	-	2.7	2.7
Misc. Worms	-	-	2.7	-	-	-	-	-
Copepoda	27.2	35.4	43.5	10.9	27.2	32.6	24.5	10.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	2.7	-	-	-	2.7	-
Mollusca	-	5.4	-	2.7	-	-	-	2.7
Invertebrate Eggs	-	-	13.6	-	19.0	8.2	5.4	2.7
Misc. Organisms	-	2.7	-	-	2.7	-	2.7	-
Subtotal	29.9	57.1	70.6	16.3	48.9	40.8	38.0	19.0
Fish Eggs	-	-	-	-	-	-	2.7	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	29.9	57.1	70.6	16.3	48.9	40.8	40.7	19.0

Run No. 42 Date May 13, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1254	1351	1447	1544	1640	1737	1834	1931
Position of Ship: (N. Lat.	32°26'	32°19'	32°16'	32°12'	32°04'	32°00'	32°00'	31°58'
(W. Long.	75°33'	75°40'	75°44'	75°51'	75°58'	76°00'	76°00'	76°03'
Protozoa	-	-	3.6	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	10.9
Chaetognatha	-	-	-	-	3.6	-	3.6	10.9
Misc. Worms	-	-	3.6	-	-	-	-	-
Copepoda	25.3	3.6	18.1	3.6	36.2	18.1	43.4	10.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	3.6	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	3.6	-	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	7.2	14.5	36.2	29.0	21.7	14.5	3.6	-
Misc. Organisms	-	10.9	29.0	-	14.5	3.6	18.1	3.6
Subtotal	32.5	32.6	90.5	32.6	76.0	36.2	72.3	36.3
Fish Eggs	-	-	-	-	-	3.6	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	32.5	32.6	90.5	32.6	76.0	39.8	72.3	36.3

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 43 Date May 13-14, 1953								
Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2038	2135	2232	2329	0026	0123	0220	0317
Position of (N. Lat.	31°53'	31°47'	31°41'	31°34'	31°28'	31°22'	31°16'	31°08'
Ship: (W. Long.	76°11'	76°17'	76°24'	76°31'	76°37'	76°43'	76°50'	76°57'
Protozoa	-	-	-	5.1	-	2.6	-	-
Coelenterata	-	-	2.6	-	-	-	5.1	2.6
Chaetognatha	7.6	5.1	5.1	20.4	2.6	2.6	7.6	2.6
Misc. Worms	-	15.3	10.2	2.6	12.8	-	-	12.8
Copepoda	33.2	23.0	23.0	28.0	38.2	28.0	51.0	33.2
Ostracoda	-	-	5.1	-	-	-	-	-
Amphipoda	2.6	-	-	-	-	-	-	-
Shrimp	-	2.6	2.6	2.6	-	2.6	5.1	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	-	-	-
Mollusca	-	2.6	10.2	2.6	2.6	2.6	-	-
Invertebrate Eggs	5.1	15.3	20.4	10.2	10.2	17.8	30.6	10.2
Misc. Organisms	7.6	2.6	5.1	12.8	5.1	-	2.6	5.1
Subtotal	56.1	66.5	84.3	84.3	71.5	56.2	102.0	66.5
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	56.1	66.5	84.3	84.3	71.5	56.2	102.0	66.5

Run No. 44 Date May 14, 1953								
Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0428	0524	0620	0716	0812	0908	1004	1100
Position of (N. Lat.	31°00'	31°00'	31°00'	31°01'	31°01'	31°03'	31°03'	31°03'
Ship: (W. Long.	76°59'	76°59'	77°03'	77°12'	77°22'	77°35'	77°45'	77°57'
Protozoa	-	-	-	-	-	-	-	2.7
Coelenterata	-	-	16.1	5.4	2.7	-	2.7	-
Chaetognatha	-	-	-	10.7	-	2.7	16.1	2.7
Misc. Worms	5.4	-	-	-	-	-	2.7	-
Copepoda	45.6	-	37.5	16.1	5.4	16.1	40.2	-
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	2.7	-	-	-	-	-	-	-
Shrimp	-	-	2.7	-	2.7	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	-	-	2.7
Mollusca	-	-	2.7	-	2.7	-	-	-
Invertebrate Eggs	29.5	16.1	18.8	18.8	18.8	13.4	53.6	-
Misc. Organisms	10.7	-	-	2.7	2.7	2.7	2.7	2.7
Subtotal	93.9	16.1	77.8	53.7	35.0	34.9	118.0	10.8
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	93.9	16.1	77.8	53.7	35.0	34.9	118.0	10.8

Table 10.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 45 Date May 14, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1205	1301	1357	1453	1549	1645	1741	1837
Position of Ship: (N. Lat.	31°02'	31°02'	31°02'	31°02'	31°05'	31°05	31°05'	31°09'
(W. Long.	78°09'	78°23'	78°32'	78°40'	78°52'	79°02'	79°12'	79°20'
Protozoa	-	-	4.8	4.8	-	-	2.4	-
Coelenterata	-	-	-	-	2.4	4.8	2.4	2.4
Chaetognatha	4.8	-	-	2.4	4.8	7.1	7.1	7.1
Misc. Worms	-	-	-	-	-	2.4	2.4	-
Copepoda	71.4	11.9	14.3	14.3	30.9	26.2	28.6	45.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	2.4	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	2.4
Misc. Crustaceans	7.1	-	-	-	-	2.4	-	-
Mollusca	2.4	2.4	-	-	-	-	-	-
Invertebrate Eggs	28.6	14.3	14.3	9.5	-	14.3	16.7	-
Misc. Organisms	4.8	-	-	4.8	2.4	2.4	-	-
Subtotal	119.1	28.6	33.4	35.8	40.5	59.6	62.0	57.1
Fish Eggs	-	14.3	2.4	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	119.1	42.9	35.8	35.8	40.5	59.6	62.0	57.1

Table 11.--Numbers and species of fish taken by trolling

Species	Date 1953	Time (EST)	Location N.Lat.	W.Long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Carcharhinus longimanus (Poey) /1	Apr. 17	2200	30°00'	77°00'	F	-	2090/2	75	squid
Synodus foetens (Linnaeus) (3 specimens)/1	Apr. 24	1140-1240	28°18.5'	80°10'	M(3)	VI(3)	252(1)/3	-	-
Trachinocephalus myops (Forster)/1	Apr. 23	0815	27°23'	80°06'	-	-	159/3	-	-
Sphyraena barracuda (Walbaum)	Apr. 22	0920	27°00'	78°00'	M	II-III	896	7.25	none
Acanthocybium solandri (Cuvier)*	Apr. 22	1815	27°00'	79°15'	F	V	1357	37.4	none
Thunnus atlanticus (Lesson)	Apr. 25	1240	29°07'	79°28'	M	II	584	8.8	Syngnathus sp. (1); Molidae (1); Acanthurus sp. ? (1); Chaetodontidae ? (4); crabs; squid
"	May 6	1730	32°30'	78°45'	F	II-III	548	7.7	none

/1. Bait fishing
/2. Total length
/3. Standard length
* Asterisked items follow Bailey's (1951) revision of the double authority Cuvier and Valenciennes.

Table 11.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.Lat.	Location W.Long	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Euthynnus alletteratus (Rafinesque)	May 6	1530	32°38'	78°58'	F	I	553	-	none
"	May 8	0758	33°16'	77°30'	F	III	602	7.2	Decapterus punctatus (Agassiz) (1); Haemulon flavolineatum (Demarest) (1)
"	May 9	1434	34°24'	77°02'	M	II	617	8.3	Scomber colias Gmelin ? (1); Etrumeus sadina (Mitchill) (1)
"	May 9	1440	34°24'	77°00'	M	II	486	4.4	Etrumeus sadina (1); fish remains, unidentified
"	May 12	0715	35°00'	75°00'	M	II-III	591	6.6	none
"	May 12	0715	35°00'	75°00'	M	V	606	7.7	none
Seriola dumerili (Risso)	July 6	0550	32°23'	79°46'	F	I	769	11.0	none
Pomatomus saltatrix (Linnaeus) /1	May 4	1340	75°34'	35°14'	-	-	184 /3	-	-
Centropristes philadelphicus (Linnaeus) /1	Apr. 23	1140	24°41'	79°59'	F	V	158 & 165 /3	-	pecten (1); limpet (1); "olive shell" gastropods (3); coral crabs (2)
Diplectrum formosum (Linnaeus) /1	Apr. 24	1240	28°18.5'	80°10'	F	VI	195 /3	-	-

/1. Bait fishing
/3. Standard length

Table 11.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.Lat.	Location W.Long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Coryphaena hippurus Linnaeus	Apr. 23	1245	27°42'	79°50'	F	V	873	12.1	Strongylura sp. (1)
"	Apr. 23	1315	27°42'	79°46'	F	V	601	3.9	Pseudupeneus maculatus (Bloch) (2); Hemiramphus sp. (1); fish remains, unidentified (2)
"	Apr. 24	1010	28°20'	79°53'	F	V-VI	1210	30.8	fish vertebrae
"	Apr. 25	1355	29°20'	79°32'	M	V	947	16.5	fish bones and vertebrae
"	Apr. 25	1355	29°20'	79°32'	F	V	709	6.6	none
"	May 5	1300	31°31'	78°56'	M	II	502	4.4	none
"	May 5	1800	31°39'	78°53'	M	V	675	7.7	fish remains ?
"	May 5	1800	31°39'	78°53'	F	VI	625	4.4	fish remains ?
"	May 6	1605	32°34'	78°53'	M	III	526	3.3	shrimp (2)
"	May 12	1530	34°28.5'	74°38.5'	F	VI	629	5.5	Holocentrus marianus Cuvier*(1); Holocentrus rufus (Walbaum) (1); Holocentrus bullisi Woods (3); Coryphaena hippurus (1); Xiphias gladius Linnaeus (1); Dactylopterus volitans (Linnaeus) (1); Gempylus serpens Cuvier*(1); Malacanthus plumieri (Bloch) (3); Spheroides sp. (2); Ophioblennius sp. (1); fish remains, unidentified (1); octopus (1); squid (1)

Table 11.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.Lat.	W.Long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
C. hippurus	May 12	1732	34°15'	74°28'	F	VI+	697	6.6	Psenes cyanophrys Valenciennes*(4) Diodon sp. (1); fish remains, unidentified (3); octopus, (1); isopods
"	May 12	1732	34°15'	74°28'	F	IV	720	6.9	Psenes cyanophrys (6); Caranx ruber (Bloch) (1); Caranx bartholomaei Cuvier*(1); Hippocampus hudsonius DeKay (1); fish remains, unidentified (2); nautilus (1); octopuses (2); squid (1)
"	May 13	1310	32°23'	75°37'	M	III-IV	837	11.0	Xanthichthys ringens (Linnaeus) (1); Aluteridae (1); fish remains, unidentified (4); squid (1)
Remora remora (Linnaeus) /4	Apr. 17	2200	30°00'	77°00'	-	-	130/3	-	-
Diodon hystrix Linnaeus ? /1	May 12	1930	34°00'	74°17.5'	-	-	254/3	-	-

/1. Bait fishing
/3. Standard length
/4. Taken from shark

Table 12.--Numbers and species of fish taken by dip net

Species	Location of capture, number and size range of specimens
ALBULIDAE	
Albula vulpes (Linnaeus)	-Reg. 71, (1 leptocephalus) 59 mm.
CLUPEOIDEI	
Clupeoidei	-Reg. 71, (1) 19 mm.
CLUPEIDAE	
Clupeidae	-Cape Hatteras Bight, 35°13'N., 75°32'W., (2) 22 mm.
ENGRAULIDAE	
Anchoa lyolepis (Evermann and Marsh)	-Cape Hatteras Bight, (1) 62.5 mm.
SYNODIDAE	
Trachinocephalus myops (Forster) ?	-Reg. 3, (2) 36-36.5 mm.
Synodus sp. ?	-Reg. 71, (3) 37-40.5 mm.
MYCTOPHIDAE	
Hygophum reinhardti (Lütken)	-Std. Sta., 4/19-20/53, 1900-0400, (1) 35.5 mm. Spc. Sta. 1, (1) 27 mm. Reg. 72, (1) 35 mm.
Myctophum rufinum Taning	-Std. Sta., 4/19-20/53, 1900-0400, (1) 53 mm.
Myctophum affine (Lütken)	-Std. Sta., 4/19-20/53, 1900-0400, (3) 39.5-77 mm. Spc. Sta. 1, (23) 24.5-77 mm. Spc. Sta. 5, (8) 18-69 mm. Spc. Sta. 8, (1) 67 mm. Reg. 8, (2) 29-29.5 mm. Reg. 63, (47) 23-56 mm. Reg. 72, (5) 23.5-33.5 mm.
Gonichthys cocco (Cocco)	-Spc. Sta. 1, (1) 40.5 mm.
Centrobranchus nigro-ocellatus (Günther)	-Spc. Sta. 1, (1) 32 mm. Spc. Sta. 5, (4) 26.5-29 mm. Spc. Sta. 9, (2) 29-31 mm.
BELONIDAE	
Strongylura sp.	-Std. Sta., 4-20-53, 0012, (1) 253 mm.
Ablennes hians (Valenciennes)*	-Reg. 63, (1) 117 mm.
HEMIRAMPHIDAE	
Euleptorhamphus velox Poey	-Reg. 42, (1) 55 mm.

* Asterisked items follow Bailey's (1951) revision of the double authority Cuvier and Valenciennes.

Table 12.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
HEMIRAMPHIDAE (cont'd)	
Hemiramphus sp.	-Reg. 3, (1) 13 mm. Reg. 8, (1) 19 mm.
Hemiramphus brasiliensis (Linnaeus)	-Reg. 3, (2) 15-27.5 mm.
Hemiramphus balao LeSueur	-Spc. Sta. 5, (1) 43 mm. Reg. 63, (2) 22.5-28 mm.
EXOCOETIDAE	
Oxyporhamphus micropterus (Valenciennes)*	-Reg. 8, (1) 47 mm.
Parexocoetus brachypterus (Richardson)	-Reg. 19, (4) 113-123 mm. Reg. 42, (1) 45.5 mm. Reg. 43, (10) 110-122 mm. Reg. 63, (7) 30.5-39.5 mm. Reg. 72, (2) 37-47.5 mm.
Exocoetus volitans Linnaeus	-Reg. 63, (3) 24-24.5 mm.
Exocoetus obtusirostris Günther	-Spc. Sta. 5, (2) 36.5-66.5 mm. Spc. Sta. 8, (1) 42.5 mm. Reg. 18, (1) 45.5 mm. Reg. 63, (4) 22-40 mm.
Cypselurus cyanopterus (Valenciennes)*	-Reg. 63, (1) 16 mm. Reg. 72, (1) 20 mm.
Cypselurus comatus (Mitchill)	-Reg. 1, (1) 40.5 mm. Reg. 8, (1) 44.5 mm.
Cypselurus heterurus (Rafinesque)	-Spc. Sta. 5, (6) 98-120 mm. Between Reg. 20 to Reg. 21, 29°40'N., 80°57'W., (2) 194-216 mm. Reg. 63, (11) 18.5-116 mm.
Prognichthys gibbifrons (Valenciennes)*	-Reg. 3, (8) 17-24 mm. Reg. 5, (3) 11-15 mm. Reg. 39, (8) 9-11 mm. Reg. 53, (6) 8-14 mm. Reg. 63, (10) 16-41.5 mm. Reg. 71, (1) 39 mm. Reg. 72, (3) 18.5-31.5 mm.
Hirundichthys affinis (Günther)	-Spc. Sta. 9, (1) 49.5 mm. Reg. 2 (1) 54 mm. Reg. 39, (1) 13 mm. Reg. 63, (24) 35.5-72 mm. Reg. 72, (10) 26.5-107 mm.

Table 12.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
HOLOCENTRIDAE	
Holocentrus sp.	-Reg. 63, (1) 14 mm.
Holocentrus bullisi Woods	-Spc. Sta. 4, (1) 28.5 mm. Spc. Sta. 5, (1) 17.5 mm. Reg. 71, (3) 11-14.5 mm.
Holocentrus vexillarius Poey	-Reg. 63, (1) 34.5 mm.
Holocentrus rufus (Walbaum)	-Reg. 8, (1) 23 mm.
SYNGNATHIDAE	
Hippocampus hudsonius DeKay	-Reg. 80, (1) 80 mm.
Syngnathus springeri Herald	-Reg. 20 to Reg. 21, 29°40'N., 80°57'W., (1) 61 mm. Reg. 42, (1) 119 mm.
ATHERINIDAE	
Membras martinica (Valenciennes)*	-Cape Hatteras Bight, (2) 84-85 mm.
MUGILIDAE	
Mugil curema Valenciennes*	-Std. Sta., 4/19-20/53, 1900-0400, (1) 22 mm. Spc. Sta. 5, (1) 20.5 mm. Reg. 3, (4) 12-20.5 mm. Reg. 13, (1) 20.5 mm. Reg. 20 to Reg. 21, 29°40'N., 80°57'W., (1) 21.5 mm. Reg. 25, (4) 14.5-19 mm. Reg. 31, (1) 19 mm. Reg. 35, (1) 20.5 mm. Reg. 37, (2) 14-22.5 mm. Reg. 54, (2) 7 mm. Reg. 61, (7) 6.5-8 mm. Cape Hatteras Bight, (14) 17.5-24 mm.
SPHYRAENIDAE	
Sphyraena sp.	-Reg. 3, (1) 17.5 mm.
SCOMBRIDAE	
Scombridae	-Reg. 63, (1) 16 mm. Reg. 71, (8) 10.5-20 mm.
XIPHIIDAE	
Xiphias gladius Linnaeus	-Reg. 17, (1) 68.5 mm. Reg. 39, (1) 33 mm. Reg. 53, (1) 70 mm. Reg. 61, (1) 28.5 mm. Reg. 72, (1) 72.5 mm.

Table 12.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
CORYPHAENIDAE	
Coryphaena hippurus Linnaeus	-Spc. Sta. 5, (1) 53 mm. Reg. 3, (4) 14.5-30.5 mm. Reg. 5, (1) 22.5 mm. Reg. 8, (1) 37 mm. Reg. 39, (2) 15.5-23.5 mm. Reg. 62, (1) 11.5 mm. Reg. 63, (59) 16-102 mm. Reg. 71, (6) 13-63 mm. Reg. 72, (14) 15-87.5 mm.
NOMEIDAE	
Nomeus gronovii (Gmelin)	-Reg. 3, (1) 9 mm.
Psenes cyanophrys Valenciennes*	-Spc. Sta. 1, (1) 21.5 mm. Spc. Sta. 2 to Spc. Sta. 3, 32°17'N., 75°42'W., (1) 54 mm. Reg. 7, (3) 19.5-22 mm. Reg. 40, (4) 19-26 mm. Reg. 63, (6) 27.5-38.5 mm. Reg. 80, (5) 32.5-36.5 mm.
CARANGIDAE	
Seriola dumerili (Risso)	-Reg. 31, (1) 20.5 mm. Reg. 61, (1) 15 mm.
Seriola zonata (Mitchill)	-Reg. 3, (29) 8.5-18 mm. Reg. 31, (2) 16-29 mm. Reg. 42, (1) 30 mm.
Decapterus punctatus (Agassiz)	-Std. Sta., 4/19-20/53, 1900-0400, (1) 23.5 mm. Spc. Sta. 1, (1) 52 mm. Reg. 3, (12) 11.5-42 mm. Reg. 5, (3) 13-17 mm. Between Reg. 20 to Reg. 21, 29°40'N., 80°57'W., (3) 16.5-35.5 mm. Reg. 42, (11) 25.5-40 mm. Reg. 71, (3) 13-41 mm.
Trachinotus falcatus (Linnaeus)	-Reg. 2, (1) 8 mm.
Caranx crysos (Mitchill)	-Reg. 63, (2) 12.5-29 mm.
Caranx ruber (Bloch)	-Spc. Sta. 1, (1) 45 mm. Reg. 3, (1) 22.5 mm. Reg. 7, (2) 23 mm. Reg. 8, (7) 25-40 mm. Reg. 40, (2) 20-23 mm. Reg. 62, (3) 24-33 mm.

Table 12.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
CARANGIDAE (cont'd)	
Caranx ruber Bloch (cont'd)	Reg. 63, (8) 25-57.5 mm.
	Reg. 72, (1) 65 mm.
	Reg. 80, (17) 26-52 mm.
Caranx bartholomaei Cuvier*	-Reg. 7, (1) 21 mm.
	Reg. 40, (1) 19.5 mm.
	Reg. 63, (3) 35.5-40 mm.
	Reg. 80, (5) 23-37 mm.
Caranx latus Agassiz	-Reg. 71, (1) 17 mm.
Caranx hippos (Linnaeus)	-Cape Hatteras Bight, (1) 26 mm.
POMATOMIDAE	
Pomatomus saltatrix (Linnaeus)	-Reg. 3, (3) 26.5-31.5 mm.
	Cape Hatteras Bight, (22) 16.5-45 mm.
KYPHOSIDAE	
Kyphosus sp.	-Reg. 63, (3) 13-16 mm.
MULLIDAE	
Pseudupeneus maculatus (Bloch)	-Reg. 3, (1) 39 mm.
	Reg. 8, (1) 49 mm.
	Reg. 20 to Reg. 21, 29°40'N., 80°57'W., (1) 37 mm.
	Reg. 42, (2) 42-44.5 mm.
	Reg. 49, (1) 43.5 mm.
	Reg. 63, (4) 34.5-45.5 mm.
	Reg. 71, (1) 49 mm.
Mullus auratus Jordan and Gilbert	-Reg. 3, (186) 8.5-42 mm.
	Reg. 13, (16) 23-40 mm.
	Reg. 19, (2) 36.5-38 mm.
	Reg. 20 to Reg. 21, 29°40'N., 80°57'W., (13) 33-39 mm.
	Reg. 25, (4) 17.5-25 mm.
	Reg. 31, (2) 15.5-18.5 mm.
	Reg. 36, (1) 17 mm.
	Reg. 42, (16) 19-34 mm.
	Reg. 43, (3) 21-27.5 mm.
	Reg. 49, (14) 22-35 mm.
	Reg. 76, (4) 24-35 mm.
POMACENTRIDAE	
Eupomacentrus sp. ?	-Reg. 3, (5) 8.5 mm.
	Reg. 63, (2) 11.5-14 mm.
	Reg. 71, (33) 10-14.5 mm.

Table 12.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
POMACENTRIDAE (cont'd)	
Abudefduf saxatilis (Linnaeus)	-Reg. 39, (1) 10.5 mm. Reg. 80, (2) 21.5-28.5 mm.
BLENNIIDAE	
Blenniidae	-Reg. 3, (60) 15-18 mm.
Ophioblennius sp.	-Reg. 42, (1) 43.5 mm.
BALISTIDAE	
Canthidermis sufflamen (Mitchill)	-Reg. 39, (1) 12.5 mm. Reg. 40, (1) 16 mm.
ALUTERIDAE	
Stephanolepis setifer (Bennett)	-Reg. 40, (1) 24.5 mm. Reg. 63, (1) 17 mm. Reg. 72, (1) 18.5 mm. Reg. 80, (1) 40 mm.
Stephanolepis hispidus (Linnaeus)	-Reg. 61, (3) 10-12.5 mm. Reg. 62, (2) 10-11 mm. Reg. 63, (3) 11-12.5 mm. Reg. 72, (1) 15 mm.
Monacanthus ciliatus (Mitchill)	-Reg. 3, (3) 15-19.5 mm.
Alutera sp. /1	-Reg. 5, (1) 15.5 mm.
Alutera scripta (Osbeck)	-Reg. 80, (1) 63 mm.
TETRAODONTIDAE	
Spheroides sp.	-Reg. 3, (41) 6.5-12.5 mm. Reg. 8, (2) 14-15 mm. Reg. 42, (1) 7 mm. Reg. 61, (1) 7.5 mm. Reg. 68, (1) 9.5 mm.
DIODONTIDAE	
Diodon hystrix Linnaeus	-Reg. 63, (1) 167 mm.
Diodon hystrix/2	-Reg. 3, (1) 43 mm.
ANTENNARIIDAE	
Histrio gibba (Mitchill)	-Spc. Sta. 2 to Spc. Sta. 3, 32°17'N., 75°42'W., (37) 11-66 mm. Spc. Sta. 4, (1) 15.5 mm. Spc. Sta. 8, (1) 14 mm. Reg. 40, (1) 13.5 mm. Reg. 63, (3) 10-34.5 mm. Reg. 72, (1) 13.5 mm. Reg. 80, (42) 10.5-35 mm.

/1. A. schoepfi (Walbaum) or A. punctata Agassiz
/2. D. holacanthus Linnaeus, if valid.

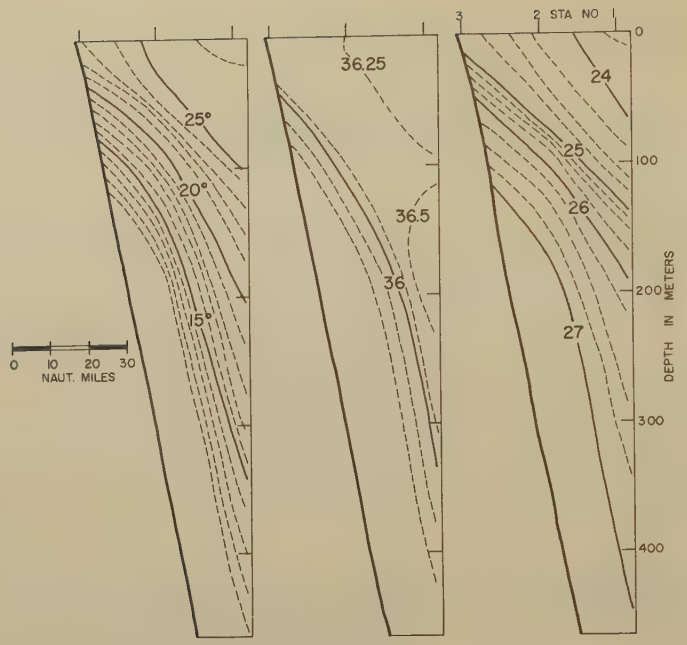

Figure 5.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 1, 2, and 3(Jupiter Section).

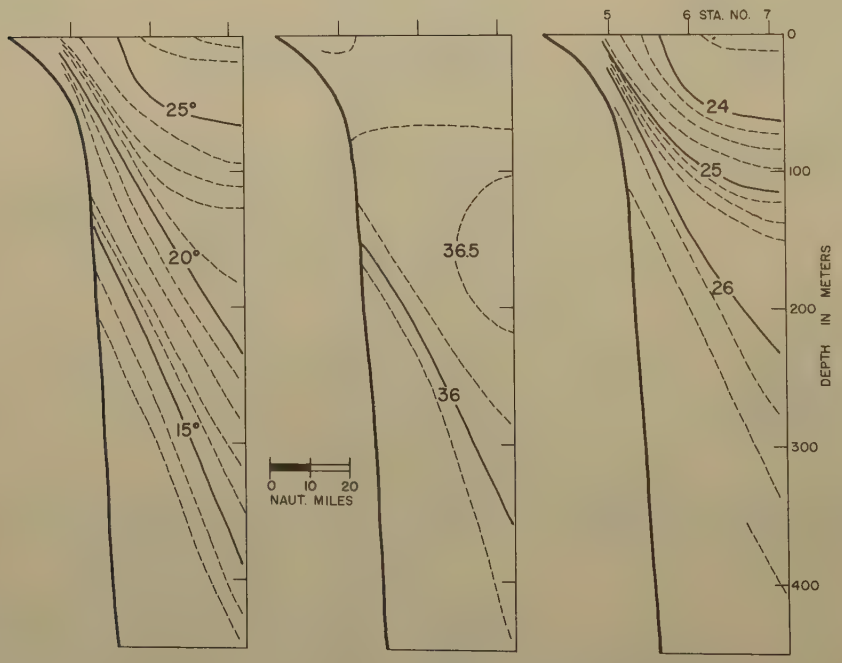

Figure 6.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 5, 6, and 7 (Vero Section).

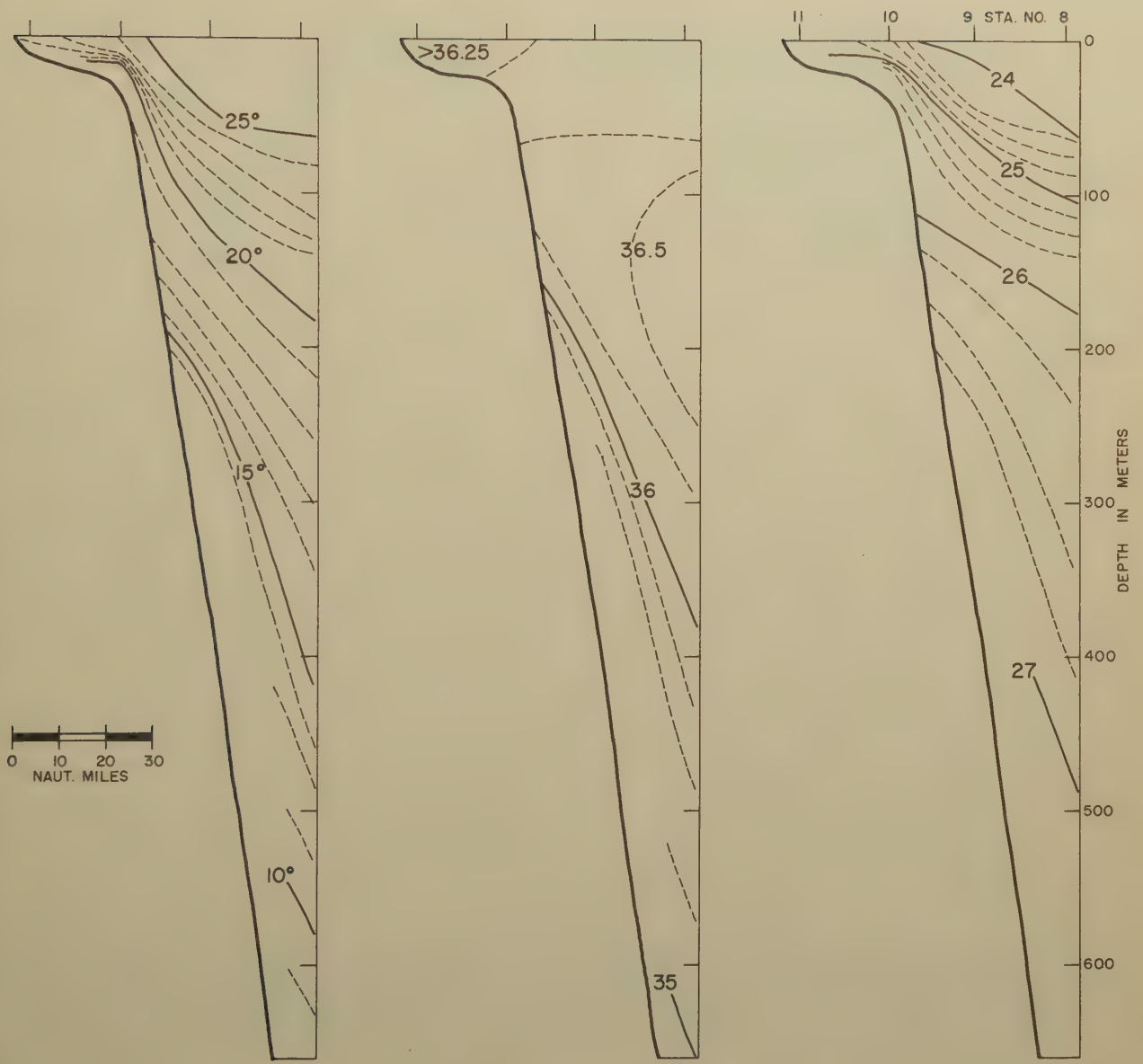

Figure 7.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 8, 9, 10, and 11 (Canaveral Section).

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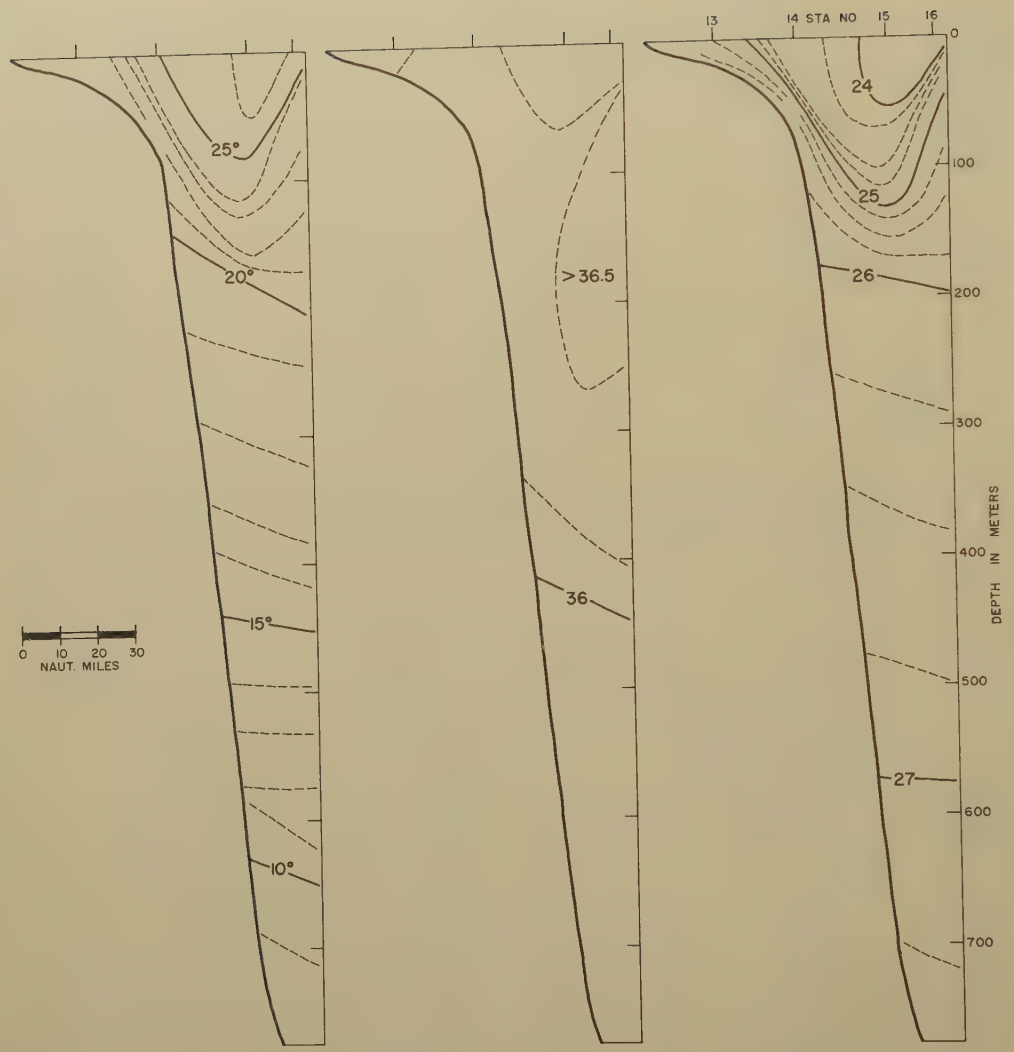

Figure 8.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 13, 14, 15, and 16 (Ponce de Leon Section).

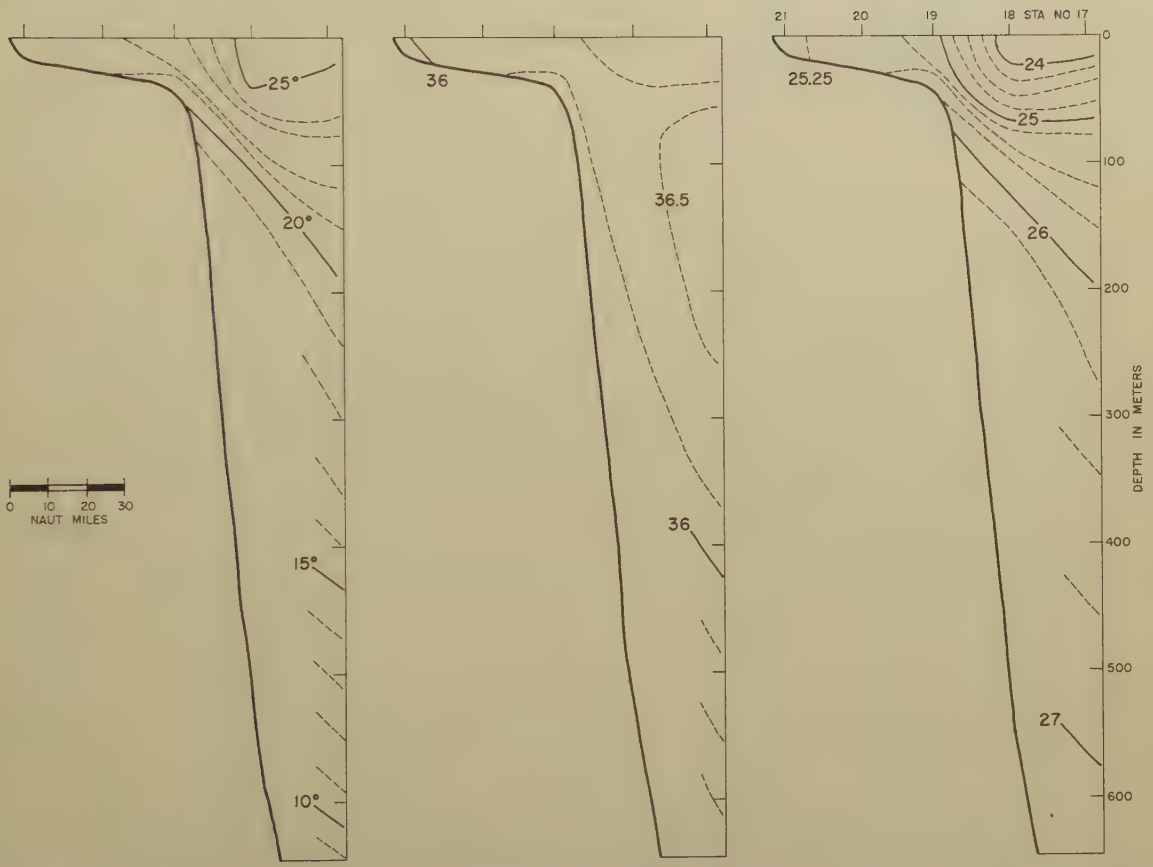

Figure 9.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 17, 18, 19, 20, and 21 (Matanzas Section).

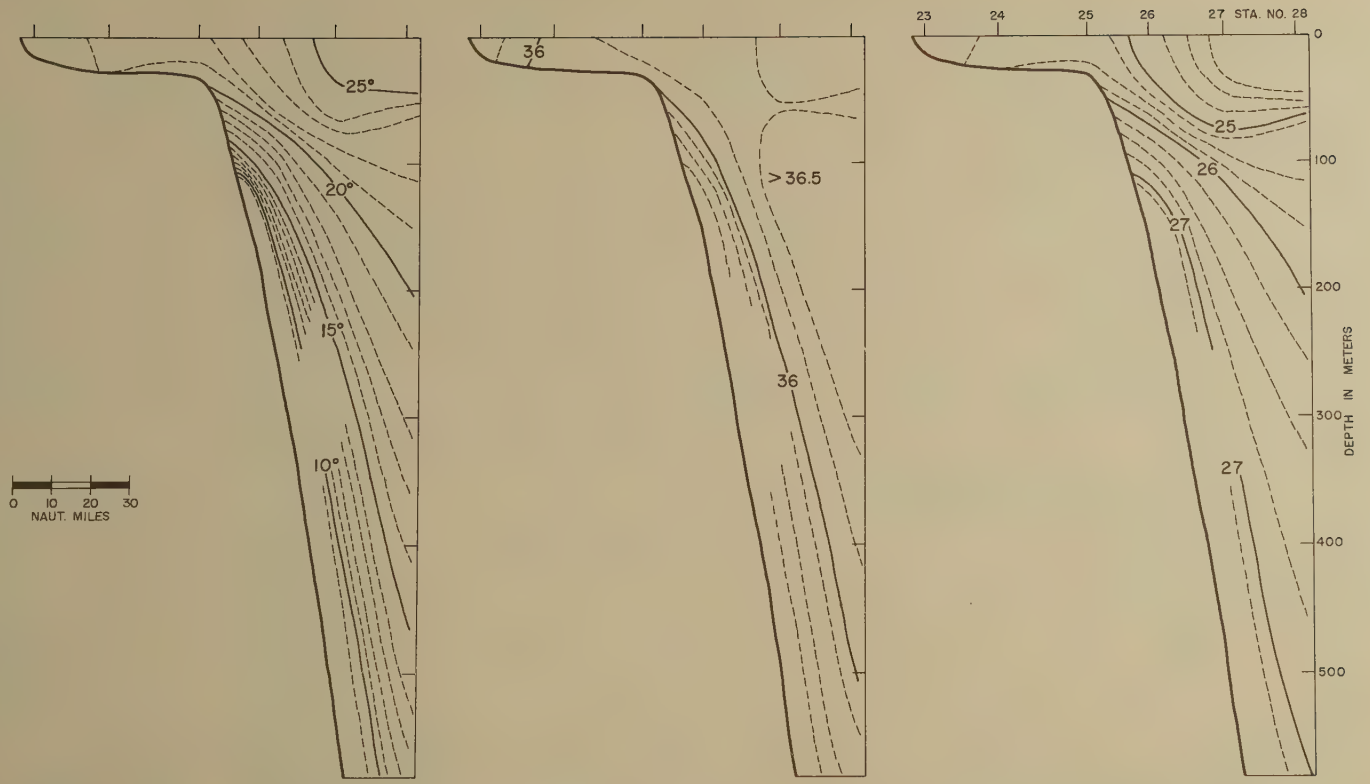

Figure 10.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 23, 24, 25, 26, 27, and 28 (Jacksonville Section).

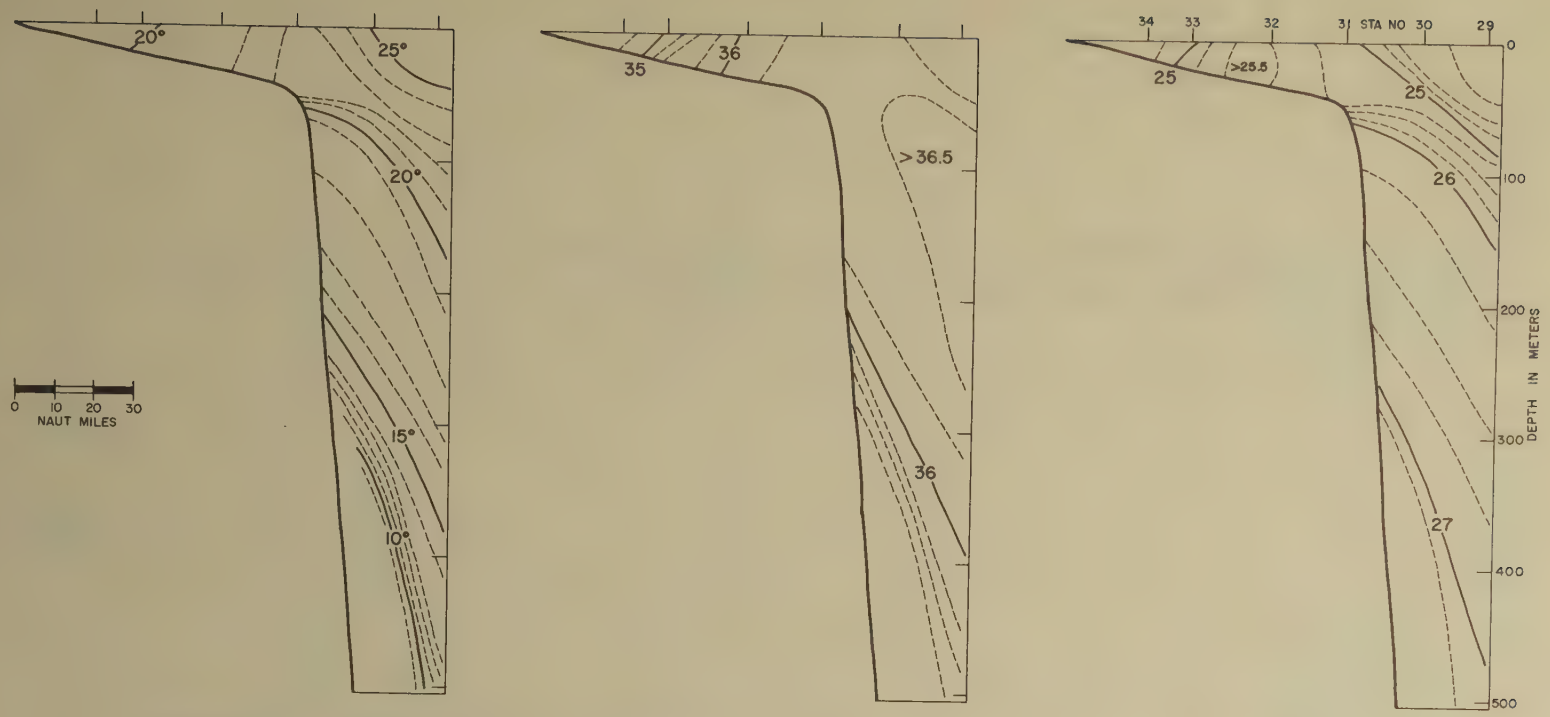

Figure 11.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 29, 30, 31, 32, 33, and 34 (Brunswick Section).

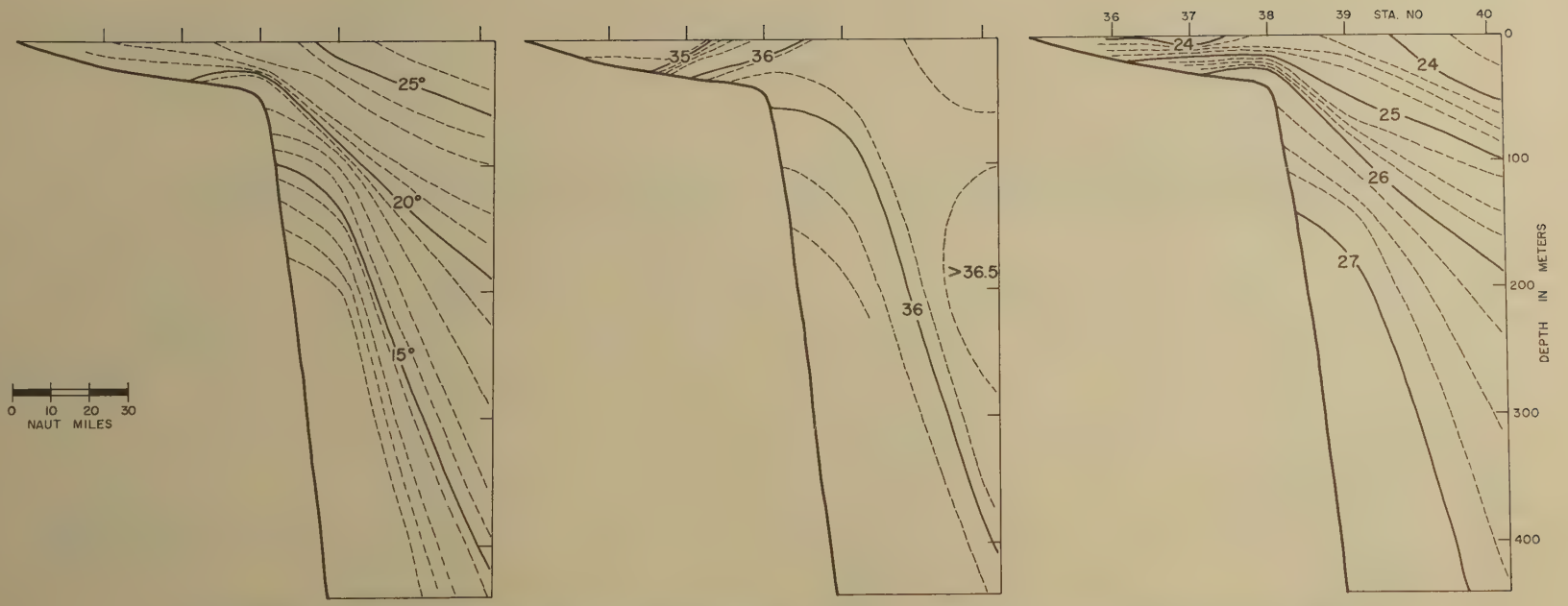

Figure 12.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 36, 37, 38, 39, and 40 (Savannah Section).

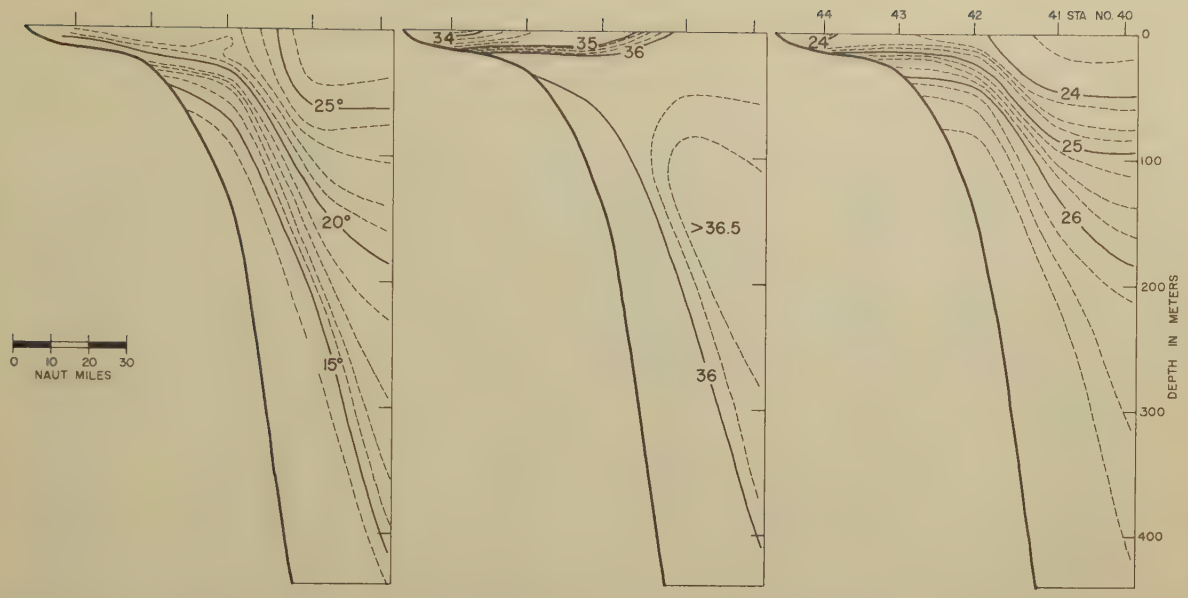

Figure 13.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 40, 41, 42, 43, and 44 (Charleston Section).

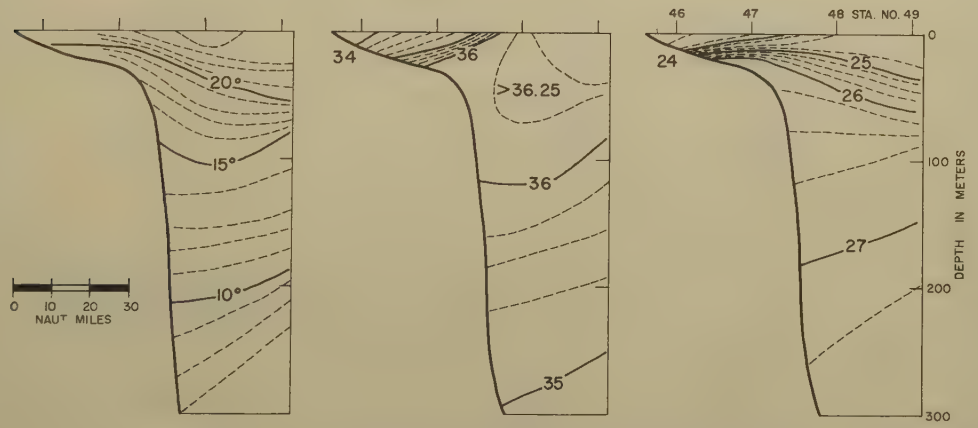

Figure 14.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 46, 47, 48, and 49 (Cape Romain Section).

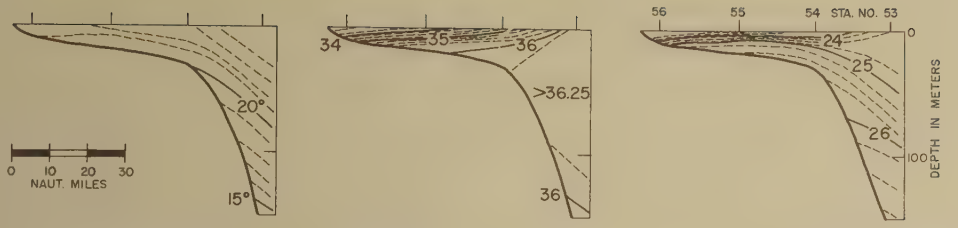

Figure 15.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 53, 54, 55, and 56 (Long Bay Section).

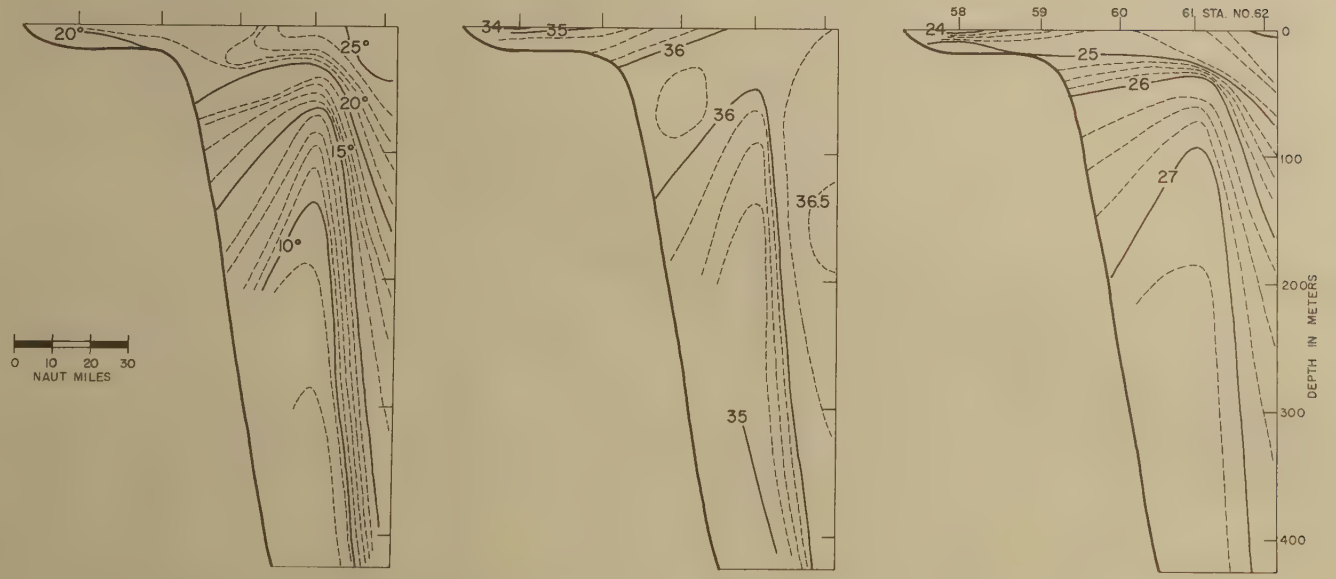

Figure 16.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 58, 59, 60, 61, and 62 (Cape Fear Section).

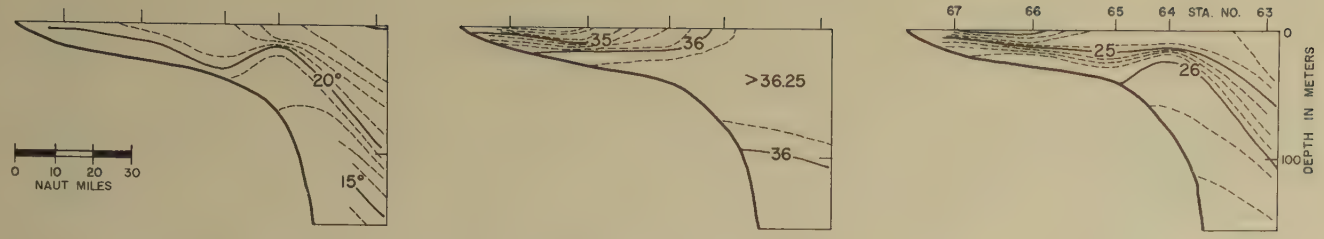

Figure 17.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 63, 64, 65, 66, and 67 (Onslow Bay Section).

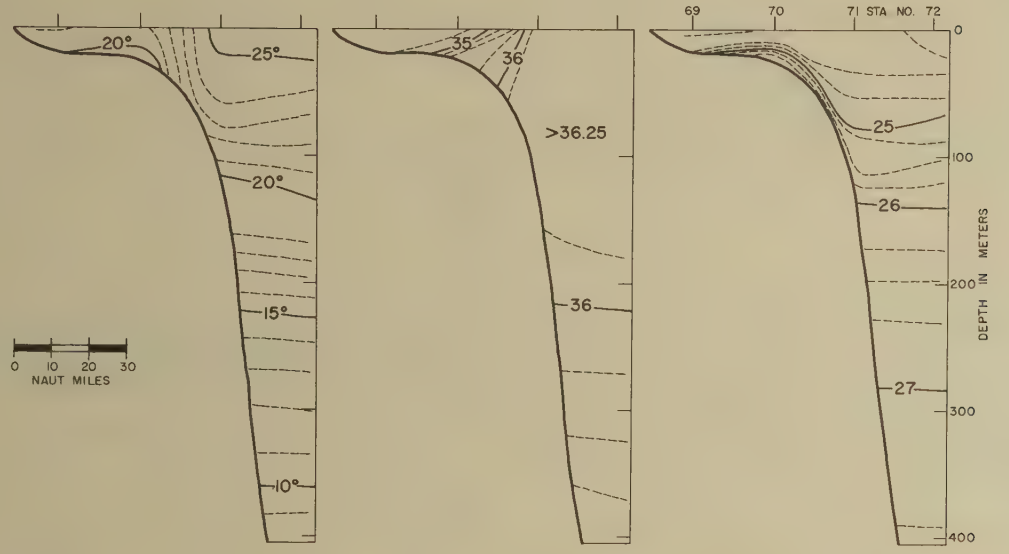

Figure 18.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 69, 70, 71, and 72 (Cape Lookout Section).

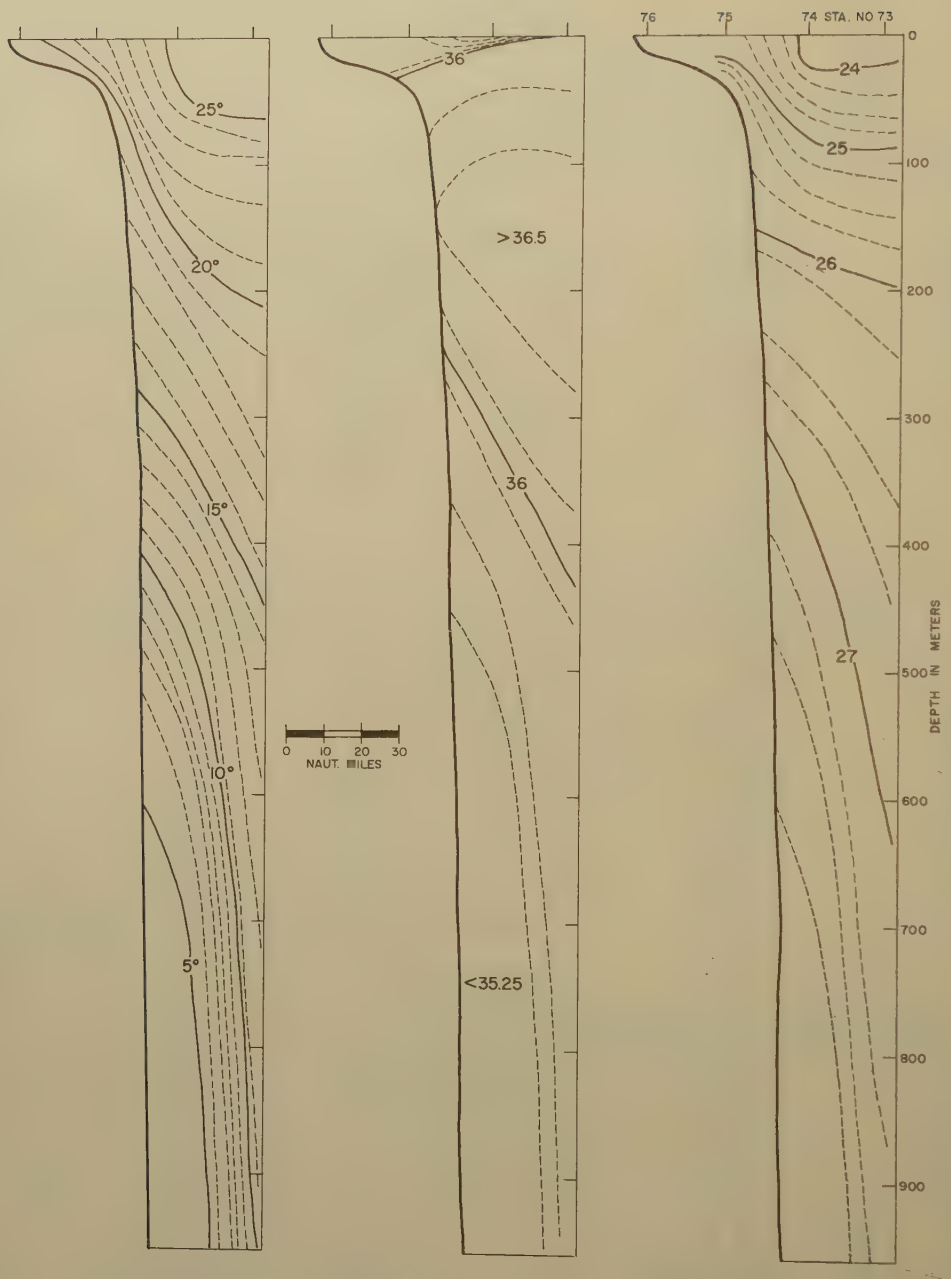

Figure 19.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 73, 74, 75, and 76 (Raleigh Bay Section).

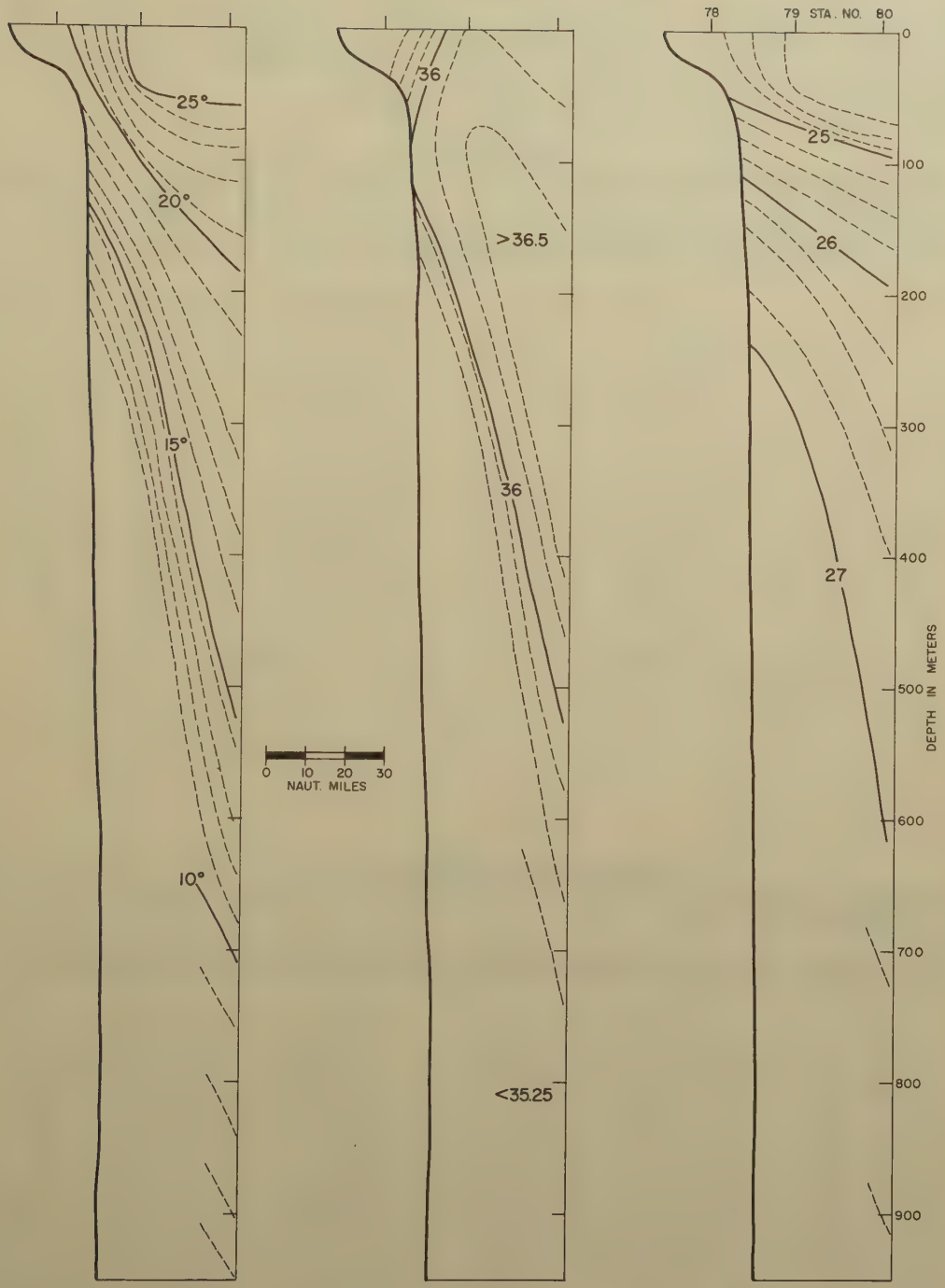

Figure 20.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 78, 79, and 80 (Hatteras Section).

STATION 1

DATE April 23, 1953 LAT. 27°00'N. LONG. 79°18'W. TIME 01
DEPTH 644 WIND 4 , 09 BAR. 22 AIR TEMP: dry 22.2 °C, wet 15.6 °C
HUMIDITY 50% WEATHER 02 CLOUDS: type 8, amt. 1 SEA: dir. 09 , amt. 2
SWELL: dir. 18 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.70**	36.10	23.66	4.48
10	26.03	36.06	23.84	4.61
19	25.99	36.07	23.86	4.61
47	25.98	36.06	23.86	4.58
94	25.00	36.27	24.32	4.29
143	21.96	36.73	25.56	3.68
193*	19.87	36.69	26.10	3.72
222	18.16	36.44	26.35	3.79
269*	17.07	36.27	26.49	3.40
364	13.37	35.71	26.88	3.00
462	10.39	35.27	27.11	2.79

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.70	36.10	23.66	4.48
10	26.03	36.06	23.84	4.61
20	25.99	36.07	23.86	4.61
30	25.98	36.06	23.86	4.60
50	25.96	36.07	23.87	4.55
75	25.47	36.16	24.09	4.43
100	24.57	36.35	24.51	4.23
150	21.59	36.72	25.66	3.69
200	19.05	36.63	26.27	3.73
250	17.11	36.31	26.51	3.56
300	15.40	36.06	26.72	3.25
400	12.18	35.53	26.98	2.80

STATION 1

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.0	0.5	-	0.0
10	0.4	0.0	0.5	-	0.7
19	-	0.3	1.5	1.6	0.8
47	0.6	0.1	0.5	-	0.4
94	-	0.1	1.0	-	1.1
143	0.6	0.6	3.0	1.8	0.1
193*	0.9	0.1	2.5	-	0.1
222	-	0.6	3.5	-	-
269*	-	0.7	6.0	-	0.0
364	0.8	-	11.5	-	0.3
462	-	1.3	9.5	-	0.1

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.0	0.5	-	0.0
10	0.4	0.0	0.5	-	0.7
20	0.5	0.3	1.5	1.6	0.8
30	0.5	0.2	1.0	-	0.6
50	0.6	0.1	0.5	-	0.4
75	0.6	0.1	1.0	-	0.8
100	0.6	0.2	1.5	-	0.9
150	0.6	0.6	3.0	1.8	0.1
200	0.6	0.6	3.5	-	0.2
250	0.7	0.7	5.0	-	0.2
300	0.7	0.8	8.0	-	0.2
400	-	1.1	10.5	-	0.2

STATION 2

DATE April 23, 1953 LAT. 26°56'N. LONG. 79°41'W. TIME 06
DEPTH 338 WIND 5 , 14 BAR. 23 AIR TEMP: dry 22.2 °C, wet 16.2 °C
HUMIDITY 54% WEATHER 02 CLOUDS: type -, amt. 2 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.22	36.25	24.24	4.73
9	25.19	36.22	24.23	4.65
17	25.20	36.26	24.25	4.87
43	24.16	36.34	24.63	4.87
84	19.93	36.31	25.80	4.79
121	15.52	35.90	26.57	3.49
153	12.25	35.50	26.95	2.99
167	10.40	35.27	27.11	2.91
177	11.60*	35.46*	27.04	-

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.22	36.25	24.24	4.73
10	25.20	36.23	24.23	4.70
20	25.15	36.27	24.28	4.87
30	24.84	36.31	24.40	4.87
50	23.49	36.34	24.83	4.86
75	20.92	36.32	25.54	4.82
100	17.94	36.14	26.18	4.40
150	12.61	35.54	26.91	3.05

STATION 2

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.7	1.0	3.1	0.1
9	0.2	0.2	0.5	-	0.6
17	0.8	0.6	0.5	-	0.3
43	-	0.4	-	-	0.2
84	-	0.8	1.5	13.8	0.2
121	-	1.2	7.5	1.3	-
153	-	1.6	7.0	-	1.4
167	-	1.7	11.0	5.1	0.1
177	-	1.8	1.0	-	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.7	1.0	3.1	0.1
10	0.2	0.2	0.5	-	0.6
20	0.8	0.6	0.5	-	0.3
30	-	0.5	0.5	-	0.2
50	-	0.5	1.0	-	0.2
75	-	0.7	1.5	-	0.2
100	-	1.0	4.0	8.4	0.5
150	-	1.6	7.0	3.7	1.3

STATION 3

DATE April 23, 1953 LAT. 27°01'N. LONG. 80°04'W. TIME 09
DEPTH 11 WIND 5 , 09 BAR. 21 AIR TEMP: dry 21.7 °C, wet 15.6 °C
HUMIDITY 53% WEATHER 02 CLOUDS: type - , amt. 1 SEA: dir. 09 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.91	36.26	24.93	4.87
10	22.86	36.30	24.98	5.20

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.91	36.26	24.93	4.87
10	22.86	36.30	24.98	5.20

STATION 3

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	<0.1	1.5	5.6	0.3
10	-	0.1	-	-	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	<0.1	1.5	5.6	0.3
10	-	0.1	-	-	1.3

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STATION 4

DATE April 23, 1953 LAT. 27°20'N. LONG. 80°04'W. TIME 13
DEPTH 22 WIND 4 , 14 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 1 , amt. 1 SEA: dir. - , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.86	36.30	24.98	5.36
10	22.82	36.27	24.97	5.26
15	21.64	36.26	25.29	5.05

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.86	36.30	24.98	5.36
10	22.82	36.27	24.97	5.26

STATION 4

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.4	1.5	-	0.0
10	-	0.7	0.5	5.3	0.3
15	0.2	0.2	0.5	3.1	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.4	1.5	-	0.0
10	-	0.7	0.5	5.3	0.3
20	0.2	0.2	0.5	3.1	-

STATION 5

DATE April 23, 1953 LAT. 27°40'N. LONG. 80°04'W. TIME 16
DEPTH 49 WIND 4 , 10 BAR. 23 AIR TEMP: dry 22.2 °C, wet 16.7 °C
HUMIDITY 57% WEATHER 02 CLOUDS: type 8 , amt. 3 SEA: dir. 09 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.90	36.30	24.67	5.03
10	23.56	36.26	24.74	5.12
20	20.70	36.12	25.45	4.43
30	18.41*	36.08	26.01	4.32
40	17.77	36.03	26.13	4.06

*Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.90	36.30	24.67	5.03
10	23.56	36.26	24.74	5.12
20	20.70	36.12	25.45	4.43
30	18.99	36.08	25.87	4.32

STATION 5

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.1	0.5	-	0.3
10	-	0.2	0.5	3.7	0.0
20	-	0.5	-	-	0.4
30	0.7	0.6	4.0	0.0	0.3
40	-	0.7	5.5	1.2	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.1	0.5	-	0.3
10	0.3	0.2	0.5	3.7	0.0
20	0.5	0.5	2.5	1.9	0.4
30	0.7	0.6	4.0	0.0	0.3

STATION 6

DATE April 23, 1953 LAT. 27°40' N. LONG. 79°41' W. TIME 20
DEPTH 567 WIND 1 , 14 BAR. 23 AIR TEMP: dry 22.8 °C, wet 16.7 °C
HUMIDITY 54 % WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. - , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. 33

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.21	36.18	23.88	4.63
9	25.93	36.13	23.93	4.64
18	25.92	36.09	23.90	4.63
42	25.85	36.09	23.92	4.63
83	23.01	36.34	24.97	4.87
124	20.08	36.39	25.82	4.51
166	18.25	36.44	26.33	3.49
209	16.50	36.20	26.57	3.39
253	14.28	35.59*	26.60	2.95
298	12.54	35.89	27.19	2.83

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.21	36.18	23.88	4.63
10	25.93	36.12	23.92	4.64
20	25.90	36.09	23.91	4.63
30	25.88	36.09	23.91	4.63
50	25.55	36.13	24.05	4.68
75	23.57	36.28	24.76	4.83
100	21.66	36.38	25.38	4.72
150	18.93	36.43	26.15	3.88
200	16.90	36.28	26.54	3.41
250	14.42	36.01	26.89	2.98

STATION 6

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.3	0.5	0.8	0.1
9	0.2	0.2	1.5	0.0	0.8
18	0.1	0.1	1.0	-	0.0
42	0.2	0.1	0.5	1.9	0.0
83	-	0.3	< 0.5	1.6	0.2
124	-	0.2	0.5	6.0	0.3
166	-	0.6	9.0	2.4	0.3
209	-	1.1	11.5	-	0.6
253	-	1.1	18.0	-	0.4
298	-	1.3	20.5	2.1	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.3	0.5	0.8	0.1
10	0.2	0.2	1.5	< 0.1	0.8
20	0.1	0.1	1.0	0.7	0.0
30	0.2	0.1	0.5	1.2	0.0
50	-	0.2	0.5	1.8	< 0.1
75	-	0.3	< 0.5	1.7	0.2
100	-	0.3	0.5	3.4	0.2
150	-	0.4	6.0	3.8	0.3
200	-	1.0	11.5	2.3	0.5
250	-	1.1	18.0	2.2	0.4
300	-	1.3	20.5	2.1	0.9

STATION 7

DATE April 24, 1953 LAT. 27°40'N. LONG. 79°18'W. TIME 00
DEPTH 521 WIND 5 , 09 BAR. 22 AIR TEMP: dry 22.8 °C, wet 20.6 °C
HUMIDITY 90% WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. 09 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.90**	36.13	23.94	4.63
10	-	36.12	-	4.58
20	25.90	36.09	23.91	4.65
49	25.84	36.08	23.92	4.49
99	23.98	36.45	24.76	4.06
148	21.20	36.70	25.75	3.65
197	19.71	36.62	26.09	3.73
297	17.22	36.32	26.49	3.51
397	14.45	35.85	26.76	2.92
447	13.12	35.67	26.91	3.11

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.90	36.13	23.94	4.63
10	25.90	36.12	23.93	4.58
20	25.90	36.09	23.91	4.65
30	25.88	36.09	23.91	4.60
50	25.82	36.08	23.92	4.48
75	25.12	36.26	24.28	4.28
100	23.93	36.46	24.79	4.05
150	21.13	36.70	25.77	3.65
200	19.64	36.62	26.11	3.73
250	18.36	36.47	26.32	3.62
300	17.15	36.30	26.49	3.50
400	14.38	35.84	26.77	2.92

STATION 7

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.1	1.0	-	0.2
10	-	0.1	0.5	-	0.0
20	-	0.2	<0.5	4.6	0.2
49	-	0.1	0.5	-	0.4
99	0.3	0.1	1.5	1.6	0.1
148	-	0.6	2.5	0.5	0.5
197	-	0.4	3.5	-	0.0
297	-	1.5	7.0	1.3	0.0
397	-	1.4	3.0	-	1.0
447	-	1.3	15.0	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.1	1.0	-	0.2
10	0.5	0.1	0.5	-	0.0
20	0.5	0.2	<0.5	4.6	0.2
30	0.4	0.2	<0.5	4.2	0.3
50	0.4	0.1	0.5	3.4	0.4
75	0.4	0.1	1.0	2.5	0.3
100	0.3	0.1	1.5	1.6	0.1
150	-	0.6	2.5	0.5	0.5
200	-	0.4	3.5	0.8	0.0
250	-	1.0	5.0	1.0	0.0
300	-	1.5	7.0	1.3	0.0
400	-	1.4	3.0	-	1.0

STATION 8

DATE April 24, 1953 LAT. 28°19'N. LONG. 79°26'W. TIME 10
DEPTH 795 WIND 3 , 20 BAR. 20 AIR TEMP: dry 22.8 °C, wet 16.7 °C
HUMIDITY 54 % WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. - , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.90**	36.07	23.89	4.64
10	28.84*	36.06	22.93	4.64
19	25.96	36.11	23.90	4.57
49	25.97	36.06	23.86	4.53
97	23.56	36.56	24.97	4.06
145	20.55	36.64	25.88	3.99
193	19.63	36.62	26.11	3.90
381	15.19*	35.97*	26.69	3.09
474	11.67*	35.48*	27.04	3.09
657	8.22	34.97	27.24	2.83

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.90	36.07	23.89	4.64
10	25.93	36.06	23.88	4.64
20	25.96	36.10	23.90	4.57
30	25.96	36.10	23.90	4.56
50	25.93	36.07	23.88	4.53
75	24.74	36.36	24.47	4.28
100	23.31	36.57	25.05	4.06
150	20.46	36.64	25.91	3.98
200	19.49	36.60	26.13	3.88
250	18.27	36.46	26.34	3.69
300	17.09	36.27	26.48	3.47
400	14.65	35.88	26.74	3.09
500	11.91	35.49	27.00	3.07
600	9.56	35.14	27.16	2.95

STATION 8

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.1	< 0.1	< 0.5	-	0.6
10	0.2	0.2	< 0.5	-	0.6
19	0.2	0.2	0.5	-	0.7
49	0.3	0.0	0.5	0.9	0.1
97	0.3	0.3	3.0	-	1.2
145	0.2	0.2	2.0	-	0.4
193	-	0.4	4.0	2.9	0.8
381	0.4	-	5.0	3.8	0.4
474	-	1.4	5.0	-	0.3
657	-	-	3.5	2.0	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.1	< 0.1	< 0.5	-	0.6
10	0.2	0.2	< 0.5	-	0.6
20	0.2	0.2	0.5	-	0.7
30	0.2	0.1	0.5	-	0.5
50	0.3	0.0	0.5	0.9	0.1
75	0.3	0.2	2.0	1.2	0.6
100	0.3	0.3	3.0	1.6	1.1
150	0.2	0.2	2.0	2.3	0.4
200	-	0.4	4.0	2.9	0.8
250	-	0.6	4.5	3.2	0.7
300	-	0.8	4.5	3.4	0.6
400	-	1.1	5.0	3.7	0.4
500	-	1.5	4.5	3.0	0.3
600	-	-	4.0	2.4	0.2

STATION 9

DATE April 24, 1953 LAT. 28°20' N. LONG. 79°48' W. TIME 14
DEPTH 374 WIND 3 , 14 BAR. 20 AIR TEMP: dry 23.9 °C, wet 21.7 °C
HUMIDITY 83 % WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. 37

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.65**	36.12	24.01	4.73
8	25.65	36.08	23.98	4.63
16	25.67	36.14	24.02	4.57
40	25.54	36.13	24.05	4.63
81	22.14	36.38	25.25	4.81
122	20.04	36.44	25.87	4.55
164	18.48	36.42	26.26	3.25
206	16.46	36.15	26.54	3.17
246	12.76	35.61	26.93	2.87

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.65	36.12	24.01	4.73
10	25.66	36.10	23.99	4.62
20	25.65	36.13	24.02	4.58
30	25.60	36.13	24.03	4.60
50	24.59	36.21	24.40	4.68
75	22.56	36.36	25.11	4.78
100	21.10	36.42	25.57	4.72
150	19.05	36.44	26.13	3.64
200	16.87	36.21	26.49	3.18

STATION 9

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.3	0.5	-	0.0
8	-	0.4	0.5	9.4	0.1
16	0.3	0.2	4.0	-	0.6
40	-	0.4	0.5	-	-
81	0.6	0.2	1.5	-	0.4
122	-	0.4	2.5	-	0.5
164	-	0.8	14.0	-	0.4
206	-	1.0	5.5	-	0.4
246	-	1.7	4.0	-	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.3	0.5	-	0.0
10	-	0.3	2.0	9.4	0.2
20	0.3	0.2	3.0	-	0.6
30	0.4	0.3	2.5	-	0.6
50	0.4	0.4	1.0	-	0.5
75	0.6	0.2	1.5	-	0.4
100	-	0.3	2.0	-	0.5
150	-	0.7	10.0	-	0.4
200	-	1.0	5.5	-	0.4
250	-	1.7	4.0	-	0.4

STATION 10

DATE April 24, 1953 LAT. 28°18'N. LONG. 80°10'W. TIME 17
DEPTH 36 WIND 3 , 16 BAR. 22 AIR TEMP: dry 23.9 °C, wet 21.7 °C
HUMIDITY 83% WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. 16 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. 14

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.20	36.29	24.58	4.98
10	23.52	36.26	24.76	4.95
20	19.73	36.11	25.70	4.75

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.20	36.29	24.58	4.98
10	23.52	36.26	24.76	4.95
20	19.73	36.11	25.70	4.75

STATION 10

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.1	0.5	2.0	0.6
10	0.9	0.2	1.0	-	0.4
20	-	0.5	3.5	1.4	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.1	0.5	2.0	0.6
10	0.9	0.2	1.0	1.7	0.4
20	-	0.5	3.5	1.4	0.7

STATION 11

DATE April 24, 1953 LAT. 28°20'N. LONG. 80°32'W. TIME 20
DEPTH 12 WIND 4 , 14 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 3 , amt. 2 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. 4

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.73	36.27	24.99	4.90

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.73	26.27	24.99	4.90

STATION 11

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.2	<0.5	3.6	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.2	<0.5	3.6	0.2

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STATION 12

DATE April 24, 1953 LAT. 28°41' N. LONG. 80°26' W. TIME 24
DEPTH 18 WIND 4 , 14 BAR. 19 AIR TEMP: dry 22.8 °C, wet 19.4 °C
HUMIDITY 73 % WEATHER 02 CLOUDS: type 1 , amt. 3 SEA: dir. 14 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.37	36.24	25.35	5.20
10	21.13	36.27	25.44	5.28

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.37	36.24	25.35	5.20
10	21.13	36.27	25.44	5.28

STATION 12

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.4	8.0	-	0.1
10	-	0.4	0.5	0.4	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.4	8.0	-	0.1
10	-	0.4	0.5	0.4	0.1

STATION 13

DATE April 25, 1953 LAT. 29°00'N. LONG. 80°33'W. TIME 01
DEPTH 17 WIND 6 , 14 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 03 CLOUDS: type 8 , amt. 3 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	20.00*	36.22	25.71	5.46
10	21.65	36.24	25.28	5.44

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	-	36.22	-	5.46
10	21.65	36.24	25.28	5.44

STATION 13

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.2	1.0	0.3	0.4
10	0.2	0.1	0.5	1.9	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.2	1.0	0.3	0.4
10	0.2	0.1	0.5	1.9	0.0

STATION 14

DATE April 25, 1953 LAT. 29°01'N. LONG. 80°08'W. TIME 06
DEPTH 82 WIND 5 , 10 BAR. 19 AIR TEMP: dry 21.1 °C, wet 19.4 °C
HUMIDITY 86% WEATHER 00 CLOUDS: type - , amt. 6 SEA: dir. 10 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.97	36.35	24.39	4.61
10	25.00	36.33	24.37	4.47
20	24.95	36.31	24.37	4.08
30	24.90	36.29	24.37	4.45
49	22.55	36.27	25.05	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.97	36.35	24.39	4.61
10	25.00	36.33	24.37	4.47
20	24.95	36.31	24.37	4.08
30	24.90	36.29	24.37	4.45

STATION 14

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	<0.1	1.5	-	0.1
10	0.3	0.1	1.5	-	0.4
20	-	0.2	4.5	-	0.3
30	0.2	<0.1	1.0	-	1.0
49	0.3	0.2	2.5	0.0	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	<0.1	1.5	-	0.1
10	0.3	0.1	1.5	-	0.4
20	0.3	0.2	4.5	-	0.3
30	0.2	<0.1	1.0	-	1.0
50	0.3	0.2	2.5	0.0	0.2

STATION 15

DATE April 25, 1953 LAT. 28°58' N. LONG. 79°47' W. TIME 10
DEPTH 732 WIND 6 , 20 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 01 CLOUDS: type 3 , amt. 5 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.00**	36.08	23.87	4.65
10	26.02	36.09	23.87	4.55
20	26.03	36.08	23.86	4.55
50	26.00	36.06	23.85	4.59
100	24.68	36.39	24.51	4.04
150	22.20	36.65	25.43	3.98
200	19.88	36.61	26.04	3.52
300	18.19	36.45	26.35	3.65
500	13.94	35.77	26.81	2.68
600	10.73	35.32	27.09	2.74

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.00	36.08	23.87	4.65
10	26.02	36.09	23.87	4.55
20	26.03	36.08	23.86	4.55
30	26.01	36.06	23.85	4.57
50	26.00	36.06	23.85	4.59
75	25.34	36.23	24.19	4.30
100	24.68	36.39	24.51	4.04
150	22.20	36.65	25.43	3.98
200	19.88	36.61	26.04	3.52
250	19.07	36.54	26.20	3.58
300	18.19	36.45	26.35	3.65
400	16.43	36.15	26.55	3.15
500	13.94	35.77	26.81	2.68
600	10.73	35.32	27.09	2.74

STATION 15

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.1	0.5	2.7	0.0
10	0.5	0.1	1.0	0.0	1.1
20	2.9	0.2	3.0	4.0	0.6
50	0.3	<0.1	0.5	-	0.0
100	0.4	0.1	1.5	-	<0.1
150	0.5	0.2	4.0	1.9	0.2
200	0.5	0.4	3.0	1.8	0.2
300	-	0.6	1.5	-	0.6
500	-	1.2	16.0	2.2	0.0
600	-	1.3	20.5	5.3	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.1	0.5	2.7	0.0
10	0.5	0.1	1.0	0.0	1.1
20	2.9	0.2	3.0	4.0	0.6
30	2.0	0.1	2.0	3.8	0.4
50	0.3	<0.1	0.5	3.5	0.0
75	0.4	0.1	1.0	3.1	<0.1
100	0.4	0.1	1.5	2.7	<0.1
150	0.5	0.2	4.0	1.9	0.2
200	0.5	0.4	3.0	1.8	0.2
250	-	0.5	2.0	1.9	0.4
300	-	0.6	1.5	2.0	0.6
400	-	0.9	8.5	2.1	0.3
500	-	1.2	16.0	2.2	0.0
600	-	1.3	20.5	5.3	0.6

STATION 16

DATE April 25, 1953 LAT. 29°00'N. LONG. 79°26'W. TIME 16
DEPTH 860 WIND 10 , 16 BAR. 19 AIR TEMP: dry 26.7 °C, wet 20.6 °C
HUMIDITY 58% WEATHER 01 CLOUDS: type 8 , amt. 5 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. 22

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.70**	36.08	23.96	4.61
10	25.76	36.08	23.94	4.61
20	25.78	36.04	23.91	4.67
48	23.60	36.53	24.94	4.86
95	22.98	36.66	25.22	4.90
143	21.76	36.68	25.58	4.94
191	20.02	36.59	25.99	4.86
386	16.99	36.31	26.54	3.92
580	11.97	35.53	27.02	3.23
775	8.28	35.12	27.35	3.34

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.70	36.08	23.96	4.61
10	25.76	36.08	23.94	4.61
20	25.78	36.04	23.91	4.67
30	24.85	36.25	24.35	4.79
50	23.59	36.54	24.95	4.87
75	23.31	36.62	25.09	4.90
100	22.88	36.67	25.25	4.93
150	21.48	36.67	25.65	4.93
200	19.92	36.58	26.01	4.83
250	19.08	36.51	26.17	4.58
300	18.32	36.44	26.31	4.35
400	16.58	36.27	26.61	3.86
500	13.88	35.86	26.89	3.49
600	11.53	35.47	27.06	3.25

STATION 16

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.4	1.5	2.3	0.9
10	0.7	0.3	2.0	-	0.1
20	0.6	0.1	0.5	2.0	0.2
48	2.4	0.0	3.0	-	0.0
95	0.8	< 0.1	1.0	-	0.5
143	0.8	0.8	2.0	1.3	0.5
191	1.9	0.1	1.5	-	0.4
386	-	0.9	5.0	-	-
580	-	1.6	13.5	1.6	0.8
775	2.4	1.6	4.5	0.6	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.4	1.5	2.3	0.9
10	0.7	0.3	2.0	2.2	0.1
20	0.6	0.1	0.5	2.0	0.2
30	1.2	0.1	1.5	2.0	0.1
50	2.4	0.0	3.0	1.8	0.0
75	1.6	< 0.1	2.0	1.7	0.3
100	0.8	< 0.1	1.0	1.5	0.5
150	0.8	0.8	2.0	1.3	0.5
200	1.9	0.1	1.5	1.3	0.4
250	-	0.3	2.5	1.4	0.4
300	-	0.5	3.5	1.4	0.5
400	-	1.0	5.5	1.5	0.6
500	-	1.3	10.0	1.6	0.7
600	-	1.6	12.5	1.5	0.8
700	2.4	1.6	8.0	1.0	0.7

STATION 17

DATE April 25, 1953 LAT. 29°40' N. LONG. 79°37 W. TIME 21
DEPTH 823 WIND 8 , 17 BAR. 17 AIR TEMP: dry 27.2 °C, wet 20.6 °C
HUMIDITY 55 % WEATHER 01 CLOUDS: type 8 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.00**	36.13	23.91	4.55
8	25.97	36.09	23.89	4.61
15	25.93	36.10	23.91	4.57
40	24.15	36.28	24.59	4.77
80	22.94	36.70	25.26	4.79
119	21.91	36.65	25.52	4.87
158	20.45	36.62	25.89	4.61
318	17.58	36.42	26.48	4.33
480	13.40	35.71	26.88	3.25
645	8.54	35.01	27.22	2.74

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.00	36.13	23.91	4.55
10	25.96	36.09	23.89	4.60
20	25.51	36.13	24.06	4.58
30	24.77	36.20	24.34	4.70
50	23.83	36.43	24.79	4.78
75	23.08	36.67	25.20	4.79
100	22.47	36.68	25.38	4.84
150	20.73	36.63	25.83	4.63
200	19.82	36.60	26.05	4.56
250	18.95	36.55	26.24	4.48
300	17.97	36.47	26.42	4.38
400	15.54	36.10	26.72	3.82
500	12.84	35.62	26.92	3.15
600	9.93	35.20	27.14	2.82

STATION 17

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.8	0.4	2.0	-	0.6
8	2.2	1.0	2.5	-	0.7
15	0.6	0.1	0.5	-	1.0
40	0.6	0.1	3.5	-	7.3
80	0.6	0.4	16.0*	-	0.8
119	0.7	0.1	1.0	-	0.6
158	0.7	0.2	3.0	-	0.7
318	0.6	0.3	5.0	-	0.3
480	-	1.3	4.5	1.5	0.5
645	-	2.1	4.5	-	0.2

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.8	0.4	2.0	-	0.6
10	1.7	0.8	2.0	-	0.8
20	0.6	0.1	1.0	-	2.3
30	0.6	0.1	2.5	-	4.8
50	0.6	0.2	3.0	-	5.7
75	0.6	0.4	2.5	-	1.6
100	0.7	0.2	1.5	-	0.7
150	0.7	0.2	3.0	-	0.7
200	0.7	0.2	3.5	-	0.6
250	0.6	0.3	4.0	-	0.5
300	0.6	0.3	5.0	-	0.3
400	-	0.8	4.5	-	0.4
500	-	1.4	4.5	1.5	0.5
600	-	1.9	4.5	-	0.3

STATION 18

DATE April 26, 1953 LAT. 29°40'N. LONG. 80°00'W. TIME 02
DEPTH 539 WIND 10 , 18 BAR. 15 AIR TEMP: dry 25.0 °C, wet 21.7 °C
HUMIDITY 75% WEATHER 60 CLOUDS: type 8 , amt. 8 SEA: dir. 18 , amt. 3
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.80**	36.12	23.96	4.55
5	25.74	36.11	23.97	4.53
10	25.75	36.10	23.96	4.57
25	25.68	36.15	24.02	4.53
51	24.41	36.36	24.57	4.29
78	22.08	36.43	25.30	4.63
105	20.00	36.40	25.85	4.37
156	18.28	36.40	26.29	3.19

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.80	36.12	23.96	4.55
10	25.75	36.10	23.96	4.57
20	25.72	36.13	23.99	4.55
30	25.51	36.20	24.11	4.49
50	24.48	36.35	24.54	4.30
75	22.33	36.43	25.23	4.61
100	20.32	36.40	25.76	4.44
150	18.33	36.40	26.28	3.34

STATION 18

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.1	0.5	-	0.5
5	0.8	0.2	1.5	1.1	0.3
10	1.0	0.0	1.0	1.1	0.4
25	3.3	< 0.1	2.0	-	2.5
51	0.7	0.4	2.0	1.4	0.7
78	0.9	0.1	1.0	-	-
105	1.6	0.2	1.0	10.0	1.1
156	-	0.4	10.0	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.1	0.5	-	0.5
10	1.0	0.0	1.0	1.1	0.4
20	2.5	< 0.1	1.5	1.2	1.8
30	2.8	< 0.1	2.0	1.2	2.2
50	0.7	0.4	2.0	1.4	0.7
75	0.9	0.1	1.0	-	0.8
100	1.6	0.2	1.0	10.0	1.1
150	-	0.4	10.0	-	0.9

STATION 19

DATE April 26, 1953 LAT. 29°39'N. LONG. 80°23'W. TIME 07
DEPTH 42 WIND 4 , 25 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 13 CLOUDS: type 9 , amt. 4 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.68	36.33	25.05	5.11
10	22.72	36.34	25.05	5.11
20	22.74	36.27	24.99	5.11
30	20.18	36.19	25.64	5.64

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.68	36.33	25.05	5.11
10	22.72	36.34	25.05	5.11
20	22.74	36.27	24.99	5.11
30	20.18	36.19	25.64	5.64

STATION 19

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.0	2.5	-	0.1
10	-	< 0.1	2.0	-	0.4
20	-	1.1	1.0	-	1.4
30	-	0.5	1.0	-	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.0	2.5	-	0.1
10	-	< 0.1	2.0	-	0.4
20	-	1.1	1.0	-	1.4
30	-	0.5	1.0	-	0.6

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STATION 20

DATE April 26, 1953 LAT. 29°40' N. LONG. 80°45' W. TIME 12
DEPTH 27 WIND 9 , 18 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 61 CLOUDS: type 2 , amt. 8 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.75	36.36	25.34	4.98
10	21.74	36.36	25.34	4.99
20	21.30	36.29	25.41	4.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.75	36.36	25.34	4.98
10	21.74	36.36	25.34	4.99
20	21.30	36.29	25.41	4.91

STATION 20

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.7	0.0	-	0.7
10	-	0.2	0.5	-	0.5
20	0.1	< 0.1	0.5	-	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.7	0.0	-	0.7
10	-	0.2	0.5	-	0.5
20	0.1	< 0.1	0.5	-	0.6

STATION 21

DATE April 26, 1953 LAT. 29°39' N. LONG. 81°08' W. TIME 15
DEPTH 16 WIND - , - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 65 CLOUDS: type 7 , amt. 8 SEA: dir. - , amt. 4
SWELL: dir. - , amt. - VIS. 5 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.11	35.97	25.22	5.06
10	21.03	35.95	25.23	5.03

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.11	35.97	25.22	5.06
10	21.03	35.95	25.23	5.03

STATION 21

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.1	0.1	0.5	-	1.1
10	1.3	0.3	0.5	3.9	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.1	0.1	0.5	-	1.1
10	1.3	0.3	0.5	3.9	0.5

STATION 22

DATE April 26, 1953 LAT. 30°00'N. LONG. 81°14'W. TIME 18
DEPTH 13 WIND - , - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 03 CLOUDS: type 7 , amt. 8 SEA: dir. - - , amt. 3
SWELL: dir. - - , amt. - VIS. 6 WATER TRANS. - -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	20.84	36.00	25.32	5.10
10	20.79	35.99	25.32	5.10

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	20.84	36.00	25.32	5.10
10	20.79	35.99	25.32	5.10

STATION 22

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.2	0.0	-	0.2
10	0.7	0.2	0.5	0.0	1.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.2	0.0	-	0.2
10	0.7	0.2	0.5	0.0	1.2

STATION 23

DATE April 26, 1953 LAT. 30°20'N. LONG. 81°20'W. TIME 20
DEPTH 16 WIND - , - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 7 , amt. 8 SEA: dir. - , amt. 1
SWELL: dir. - , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	20.75	35.58	25.02	4.49
10	20.55	35.62	25.11	5.10

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	20.75	35.58	25.02	4.49
10	20.55	35.62	25.11	5.10

STATION 23

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.2	1.0	-	0.8
10	-	<0.1	2.5	1.1	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.2	1.0	-	0.8
10	-	<0.1	2.5	1.1	0.5

STATION 24

DATE April 26, 1953 LAT. 30°20' N. LONG. 80°57' W. TIME 23
DEPTH 29 WIND -, - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 25 CLOUDS: type 6, amt. 8 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.19	36.13	25.32	5.11
10	21.18	36.13	25.32	5.16
20	21.09	36.22	25.42	4.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.19	36.13	25.32	5.11
10	21.18	36.13	25.32	5.16
20	21.09	36.22	25.42	4.99

STATION 24

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	0.5	-	2.1
10	0.3	0.3	2.0	0.0	-
20	0.8	< 0.1	0.5	-	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	0.5	-	2.1
10	0.3	0.3	2.0	0.0	-
20	0.8	< 0.1	0.5	-	-

STATION 25

DATE April 27, 1953 LAT. 30°20'N. LONG. 80°35'W. TIME 02
DEPTH 33 WIND -, - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 03 CLOUDS: type 6, amt. 6 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.62	36.36	25.38	5.17
10	21.65	36.30	25.32	5.16
25	20.73	36.22	25.51	4.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.62	36.36	25.38	5.17
10	21.65	36.30	25.32	5.16
20	21.17	36.24	25.41	5.07

STATION 25

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.5	0.2	0.5	-	-
10	-	< 0.1	0.5	1.3	0.5
25	1.3	0.0	0.5	1.7	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.5	0.2	0.5	-	-
10	1.4	< 0.1	0.5	1.3	0.5
20	1.3	0.0	0.5	1.7	-

STATION 26

DATE April 27, 1953 LAT. 30°20'N. LONG. 80°12'W. TIME 05
DEPTH 165 WIND 11, 24 BAR. 12 AIR TEMP: dry 22.2°C, wet 18.9°C
HUMIDITY 73% WEATHER 01 CLOUDS: type -, amt. 3 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.24	36.35	24.91	4.87
8	23.16*	36.35	24.93	4.87
17	23.23	36.31	24.88	4.87
26	22.99	36.36	24.99	4.38
43	22.30	36.36	25.18	5.03
65	19.57	36.27	25.86	4.04
86	16.27	36.03	26.49	2.78
130	8.83	35.17	27.30	2.92

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.24	36.35	24.91	4.87
10	23.23	36.33	24.89	4.87
20	23.16	36.33	24.91	4.70
30	22.94	36.36	25.00	4.52
50	21.51	36.35	25.40	4.74
75	18.02	36.17	26.18	3.44
100	13.98	35.81	26.83	2.83

STATION 26

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.2	2.5	-	2.8
8	-	0.1	2.0	-	0.7
17	-	0.1	-	-	1.2
26	-	0.2	1.0	6.0	0.3
43	-	0.1	0.5	-	0.6
65	-	0.4	0.5	0.8	0.2
86	-	0.7	6.0	1.5	0.4
130	-	1.6	22.5	6.2	2.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.2	2.5	-	2.8
10	-	0.1	2.0	-	0.8
20	-	0.1	1.5	-	0.9
30	-	0.2	1.0	5.5	0.4
50	-	0.2	0.5	2.8	0.5
75	-	0.5	3.0	1.1	0.3
100	-	1.0	11.0	3.0	1.2

STATION 27

DATE April 27, 1953 LAT. 30°19'N. LONG. 79°50'W. TIME 08
DEPTH 503 WIND 11 , 27 BAR. 12 AIR TEMP: dry 22.2 °C, wet 18.3 °C
HUMIDITY 69% WEATHER 01 CLOUDS: type - , amt. 3 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.70**	36.15	24.01	4.49
5	25.68	36.14	24.01	4.49
11	25.65	36.13	24.02	4.55
30	25.62	36.13	24.02	4.55
46	-	36.26	-	4.55
63	24.12	36.53	24.78	3.80
126	19.86	36.68	26.10	3.56
191	17.37	36.38	26.50	3.65
255	14.96	36.02	26.78	2.91
321*	18.25	36.64	26.48	3.65

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.70	36.15	24.01	4.49
10	25.65	36.13	24.02	4.56
20	25.63	36.13	24.02	4.55
30	25.62	36.13	24.02	4.55
50	24.80	36.40	24.48	4.40
75	23.30	36.62	25.09	3.75
100	21.40	36.68	25.68	3.65
150	18.90	36.58	26.27	3.58
200	17.00	36.32	26.54	3.62
250	15.15	36.04	26.76	2.93

STATION 27

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.4	14.5*	1.5	0.1
5	0.2	-	0.5	2.3	-
11	0.2	< 0.1	6.0*	0.2	0.5
30	0.1	< 0.1	1.0	-	0.1
46	-	0.1	0.5	-	1.1
63	< 0.1	0.0	2.0	-	0.2
126	-	0.5	1.5	-	0.6
191	-	0.7	5.5	-	1.6
255	-	0.9	9.0	-	-

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.4	-	1.5	0.1
10	0.2	< 0.1	0.5	0.2	0.5
20	0.1	< 0.1	1.0	-	0.3
30	0.1	< 0.1	1.0	-	0.1
50	0.1	0.1	1.0	-	0.9
75	-	0.1	2.0	-	0.3
100	-	0.3	1.5	-	0.4
150	-	0.6	3.0	-	1.0
200	-	0.7	5.5	-	1.6
250	-	0.9	9.0	-	1.7

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STATION 28

DATE April 27, 1953 LAT. 30°20' N. LONG. 79°28' W. TIME 12
DEPTH 786 WIND 8 , 27 BAR. 13 AIR TEMP: dry 22.2 °C, wet 16.7 °C
HUMIDITY 57% WEATHER 01 CLOUDS: type 8 , amt. 3 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.80**	36.21	24.03	5.07
8	25.77	36.20	24.03	4.67
15	25.70	36.20	24.05	4.59
38	25.59	36.20	24.09	4.59
77	22.51	36.63	25.32	4.79
117	21.85	36.63	25.52	4.86
156	20.87	36.67	25.82	4.83
316	17.73	36.51	26.51	4.38
476	14.53	36.01	26.87	3.60
577	11.89	35.56	27.06	3.19

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.80	36.21	24.03	5.07
10	25.75	36.20	24.04	4.63
20	25.68	36.20	24.06	4.59
30	25.63	36.20	24.07	4.59
50	24.39	36.37	24.58	4.66
75	22.61	36.61	25.29	4.79
100	22.17	36.62	25.42	4.85
150	21.02	36.67	25.78	4.84
200	20.01	36.66	26.04	4.73
250	19.03	36.62	26.27	4.60
300	18.05	36.54	26.46	4.44
400	16.05	36.28	26.74	3.99
500	13.95	35.91	26.92	3.50

STATION 28

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.5	0.0	1.0	1.5	0.3
8	1.1	0.0	2.0	-	1.2
15	0.5	0.1	0.5	-	0.3
38	0.3	-	14.0*	-	0.1
77	0.9	0.0	0.5	-	0.3
117	-	0.3	3.0	0.8	0.4
156	4.5	0.6	1.0	-	0.3
316	2.3	0.1	2.5	3.3	0.5
476	-	1.1	4.5	5.3	1.0
577	6.5	0.5	5.0	-	1.5

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.5	0.0	1.0	1.5	0.3
10	0.9	< 0.1	1.5	-	0.9
20	0.5	0.1	0.5	-	0.3
30	0.4	0.1	0.5	-	0.2
50	0.5	< 0.1	0.5	-	0.2
75	0.9	0.0	0.5	-	0.3
100	2.0	0.2	2.0	0.8	0.4
150	4.2	0.6	1.0	-	0.3
200	3.9	0.5	1.5	-	0.3
250	3.2	0.3	2.0	-	0.4
300	2.5	0.2	2.0	3.3	0.5
400	3.6	0.6	3.5	4.3	0.8
500	5.2	1.0	4.5	5.3	1.1

STATION 29

DATE April 27, 1953 LAT. 30°56'N. LONG. 79°16'W. TIME 17
DEPTH 759 WIND 8 , 27 BAR. 13 AIR TEMP: dry 22.2 °C, wet 16.7 °C
HUMIDITY 57% WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.80**	36.21	24.03	4.57
7	25.76	36.18	24.02	4.59
13	25.77	36.20	24.03	4.59
35	25.71	36.22	24.06	4.57
70	23.65	36.54	24.93	4.79
107	21.97	36.65	25.50	4.79
143	20.39	36.74	26.00	4.55
287	17.88	36.54	26.50	4.55
433	13.48	35.81	26.94	3.33
505	10.19	35.26	27.14	3.09

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.80	36.21	24.03	4.57
10	25.77	36.19	24.02	4.59
20	25.75	36.20	24.04	4.58
30	25.73	36.21	24.05	4.57
50	24.77	36.38	24.47	4.66
75	23.42	36.56	25.01	4.79
100	22.28	36.63	25.40	4.79
150	20.31	36.74	26.02	4.55
200	19.61	36.72	26.19	4.55
250	18.70	36.64	26.37	4.55
300	17.61	36.50	26.53	4.46
400	14.74	36.02	26.83	3.63
500	10.44	35.30	27.13	3.12

STATION 29

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.1	0.0	2.0	0.0	0.5
7	0.1	0.0	0.5	5.0	0.1
13	0.6	0.0	1.0	-	-
35	0.6	0.4	2.0	0.9	0.0
70	1.1	0.0	0.5	-	2.8
107	0.3	0.0	2.5	2.0	0.3
143	0.4	-	4.0	-	0.9
287	2.2	0.2	5.0	1.1	0.1
433	5.7	< 0.1	2.5	4.0	0.0
505	1.7	1.2	25.0	-	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.1	0.0	2.0	0.0	0.5
10	0.4	0.0	1.0	4.4	0.1
20	0.6	0.1	1.5	3.0	< 0.1
30	0.6	0.3	1.5	1.5	< 0.1
50	0.8	0.2	1.5	1.1	1.2
75	1.0	0.0	0.5	1.5	2.4
100	0.5	0.0	2.0	1.9	0.8
150	0.5	< 0.1	4.0	1.8	0.9
200	1.1	0.1	4.5	1.6	0.6
250	1.7	0.2	4.5	1.3	0.3
300	2.5	0.2	4.5	1.4	0.1
400	4.9	0.1	3.0	3.4	< 0.1
500	1.7	1.2	25.0	-	0.2

STATION 30

DATE April 27, 1953 LAT. 31°00' N. LONG. 79°38' W. TIME 21
DEPTH 686 WIND 10 , 31 BAR. 12 AIR TEMP: dry 22.2 °C, wet 16.7 °C
HUMIDITY 57 % WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.20**	36.26	24.25	4.63
6	25.00	36.27	24.32	4.69
12	24.98	36.27	24.33	4.81
30	24.53	36.37	24.54	4.81
62	22.99	36.73	25.27	3.80
95	20.00	36.60	26.00	3.52
125	18.72	36.44	26.21	3.31
190	16.67	36.26	26.58	3.19
255	14.05	35.90	26.89	2.60*
375	8.88	35.16	27.28	2.83

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.20	36.26	24.25	4.63
10	24.98	36.27	24.33	4.78
20	24.86	36.30	24.39	4.81
30	24.53	36.37	24.54	4.81
50	23.79	36.60	24.93	4.06
75	22.18	36.71	25.48	3.67
100	19.80	36.57	26.03	3.47
150	17.95	36.37	26.35	3.27
200	16.35	36.22	26.62	3.18
250	14.36	35.95	26.86	3.09
300	12.18	35.64	27.07	2.99

STATION 30

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.0	0.0	1.5	-	1.7
6	-	0.7	0.0	0.9	1.3
12	2.7	0.0	2.0	-	0.5
30	0.6	0.4	3.5	6.1	0.7
62	0.3	0.2	2.0	-	0.3
95	0.5	0.3	8.5	-	0.1
125	-	0.5	8.5	0.0	1.3
190	-	0.8	1.5	1.8	0.5
253	1.0	0.9	6.0	-	0.4
375	-	1.7	8.0	1.5	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.0	0.0	1.5	-	1.7
10	2.3	0.2	1.5	1.9	0.7
20	1.7	0.2	2.5	4.0	0.6
30	0.6	0.4	3.5	6.1	0.7
50	0.4	0.3	2.5	4.8	0.4
75	0.4	0.2	4.5	3.2	0.2
100	0.5	0.3	8.5	1.6	0.3
150	0.7	0.6	6.0	0.7	1.0
200	0.8	0.8	2.0	1.8	0.5
250	1.0	0.9	6.0	1.7	0.4
300	-	1.2	7.0	1.6	0.6

STATION 31

DATE April 28, 1953 LAT. 31°00' N. LONG. 79°59' W. TIME 04
DEPTH 51 WIND 6 , 31 BAR. 13 AIR TEMP: dry 20.6 °C, wet 13.3 °C
HUMIDITY 44 % WEATHER 01 CLOUDS: type - , amt. 1 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.74	36.37	25.07	5.03
10	22.73	36.40	25.09	5.03
20	22.66	36.39	25.10	4.98
30	22.66	36.40	25.11	4.87

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.74	36.37	25.07	5.03
10	22.73	36.40	25.09	5.03
20	22.66	36.39	25.10	4.98
30	22.66	36.40	25.11	4.87

STATION 31

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	4.0	0.1	1.0	0.3	0.6
10	2.2	0.0	0.5	2.9	0.9
20	1.1	0.0	-	-	1.3
30	0.1	0.0	0.5	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	4.0	0.1	1.0	0.3	0.6
10	2.2	0.0	0.5	2.9	0.9
20	1.1	0.0	0.5	-	1.3
30	0.1	0.0	0.5	-	1.0

STATION 32

DATE April 28, 1953 LAT. 31°00' N. LONG. 80°23' W. TIME 06
DEPTH 34 WIND -, - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type -, amt. 0 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	20.55	36.10	25.47	5.06
10	20.52	36.13	25.50	5.06
20	20.70	36.22	25.52	5.03
30	20.81	36.22	25.49	4.98

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	20.55	36.10	25.47	5.06
10	20.52	36.13	25.50	5.06
20	20.70	36.22	25.52	5.03
30	20.81	36.22	25.49	4.98

STATION 32

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.3	0.0	-	0.3
10	0.9	0.0	0.5	-	1.1
20	0.7	0.2	0.5	5.0	0.5
30	0.7	0.1	0.5	-	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.3	0.0	-	0.3
10	0.9	0.0	0.5	-	1.1
20	0.7	0.2	0.5	5.0	0.5
30	0.7	0.1	0.5	-	0.1

STATION 33

DATE April 28, 1953 LAT. 31°00' N. LONG. 80°46' W. TIME 09
DEPTH 23 WIND -, - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type -, amt. 0 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	19.93	35.17	24.93	5.20
15	20.03	35.46	25.12	5.12

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	19.93	35.17	24.93	5.20
10	20.00	35.37	25.06	5.14

STATION 33

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	4.4	0.2	1.5	1.7	0.5
15	1.1	0.2	-	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	4.4	0.2	1.5	1.7	0.5
10	2.2	0.2	-	-	1.0

STATION 34

DATE April 28, 1953 LAT. 31°00'N. LONG. 81°09'W. TIME 11
DEPTH 14 WIND - , - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 0 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	19.79	34.70	24.61	5.12
10	19.80	34.75	24.64	5.12

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	19.79	34.70	24.61	5.12
10	19.80	34.75	24.64	5.12

STATION 34

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	<0.1	0.0	-	0.5
10	0.8	0.4	2.5	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	<0.1	0.0	-	0.5
10	0.8	0.4	2.5	-	0.3

STATION 35

DATE May 5, 1953 LAT. 31°21' N. LONG. 80°55' W. TIME 01
DEPTH 15 WIND 5 , 14 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 0 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.11	34.69	23.97	4.91
10	20.90	34.86	24.43	4.95

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.11	34.69	23.97	4.91
10	20.90	34.86	24.43	4.95

STATION 35

OBSERVED

DEPTH (m)	TOTAL P (μg at/l)	PO_4-P (μg at/l)	NO_3-NO_2 (μg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.0	0.5	-	0.4
10	0.2	< 0.1	0.5	0.6	1.4

INTERPOLATED

DEPTH (m)	TOTAL P (μg at/l)	PO_4-P (μg at/l)	NO_3-NO_2 (μg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.0	0.5	-	0.4
10	0.2	< 0.1	0.5	0.6	1.4

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STATION 36

DATE May 5, 1953 LAT. 31°42'N. LONG. 80°38'W. TIME 04
DEPTH 21 WIND 7, 14 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 0, amt. 1 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.98	34.61	23.95	5.02
15	20.18	34.79	24.57	4.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.98	34.61	23.95	5.02
10	21.21	34.69	24.22	5.00

STATION 36

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.1	0.1	4.0	0.9	0.4
15	0.3	0.1	1.5	-	1.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.1	0.1	4.0	0.9	0.4
10	0.3	0.1	1.5	-	1.2

STATION 37

DATE May 5, 1953 LAT. 31°38'N. LONG. 80°14'W. TIME 07
DEPTH 32 WIND 9 , 17 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type - , amt. - SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.78	34.63	23.74	4.95
10	21.97	34.69	24.01	4.63
20	21.23	35.99*	25.20	4.95

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.78	34.63	23.74	4.95
10	21.97	34.69	24.01	4.63
20	21.23	-	-	4.95

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.1	0.5	0.2	0.4
10	0.9	0.0	< 0.5	-	0.8
20	0.3	0.0	0.5	-	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.1	0.5	0.2	0.4
10	0.9	0.0	< 0.5	-	0.8
20	0.3	0.0	0.5	-	0.1

STATION 38

DATE May 5, 1953 LAT. 31°36'N. LONG. 79°51'W. TIME 11
DEPTH 45 WIND 8, 17 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 03 CLOUDS: type 2, amt. 3 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.34	35.70	24.39	4.98
10	23.26	35.71	24.42	5.12
20	22.33	36.35*	25.17	5.12
30	18.27	36.15	26.10	4.42

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.34	35.70	24.39	4.98
10	23.26	35.71	24.42	5.12
20	22.33	35.89	24.82	5.12
30	18.27	36.15	26.10	4.42

STATION 38

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.0	0.5	-	0.5
10	0.3	0.0	1.0	3.0	0.6
20	0.2	0.0	1.5	-	0.3
30	-	0.7	5.0	-	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.0	0.5	-	0.5
10	0.3	0.0	1.0	3.0	0.6
20	0.2	0.0	1.5	-	0.3
30	-	0.7	5.0	-	0.8

STATION 39

DATE May 5, 1953 LAT. 31°34'N. LONG. 79°27'W. TIME 14
DEPTH 468 WIND 9 , 18 BAR. 23 AIR TEMP: dry 25.6 °C, wet 23.3 °C
HUMIDITY 83% WEATHER 03 CLOUDS: type 8 , amt. 6 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.74	36.36	24.16	4.63
4	25.73	36.37	24.17	4.59
8	25.72	36.36	24.17	4.65
23	24.45	36.36	24.56	4.77
33	23.48	36.34	24.83	4.87
45	22.76	36.29	25.00	4.87
70	20.60	36.09	25.45	4.49
92	17.18	35.86	26.15	4.02
145	13.65	35.71	26.83	3.09
200	10.90	35.41	27.13	2.84

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.74	36.36	24.16	4.63
10	25.59	36.36	24.21	4.67
20	24.75	36.36	24.47	4.75
30	23.77	36.35	24.75	4.85
50	22.40	36.26	25.08	4.80
75	19.84	36.02	25.60	4.46
100	16.59	35.84	26.27	3.86
150	13.40	35.69	26.86	3.01
200	10.90	35.41	27.13	2.84

STATION 39

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	1.5	1.4	1.0
4	0.1	0.0	0.5	0.1	0.3
8	0.1	< 0.1	0.5	4.4	0.5
23	-	0.2	0.0	-	0.2
33	0.1	< 0.1	0.5	5.6	0.1
45	0.0	0.0	1.5	0.3	0.9
70	-	0.2	2.0	-	0.7
92	-	1.0	6.0	3.9	0.3
145	-	1.2	7.5	-	< 0.1
200	-	1.4	22.0	2.1	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	1.5	1.4	1.0
10	0.1	0.1	0.5	4.5	0.5
20	-	0.2	0.0	5.0	0.2
30	0.1	0.1	0.5	5.5	0.1
50	-	< 0.1	1.5	0.7	0.9
75	-	0.4	3.0	2.6	0.6
100	-	1.1	6.0	3.8	0.3
150	-	1.2	7.5	2.9	< 0.1
200	-	1.4	22.0	2.1	0.2

STATION 40

DATE May 5, 1953 LAT. 31°29'N. LONG. 78°41'W. TIME 20
DEPTH 534 WIND 7 , 19 BAR. 22 AIR TEMP: dry 26.1 °C, wet 22.8 °C
HUMIDITY 76% WEATHER 02 CLOUDS: type 8, amt. 2 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.77	36.13	23.66	4.59
10	26.71	36.13	23.68	4.59
18	26.57	36.13	23.73	4.63
44	25.84	36.15	23.97	4.30
88	23.24	36.41	24.95	4.63
132	22.06	36.60	25.43	4.71
177	20.03	36.60	25.99	4.67
265	18.14	36.51	26.41	4.55
355	16.70	36.29	26.59	4.47
444	13.55	35.75	26.88	3.25

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.77	36.13	23.66	4.59
10	26.71	36.13	23.68	4.59
20	26.54	36.13	23.74	4.62
30	26.31	36.13	23.81	4.45
50	25.40	36.19	24.14	4.32
75	23.86	36.34	24.72	4.60
100	23.00	36.48	25.07	4.66
150	21.16	36.60	25.69	4.70
200	19.49	36.59	26.13	4.63
250	18.43	36.53	26.35	4.57
300	17.82	36.47	26.46	4.52
400	15.50	36.11	26.73	3.86

STATION 40

ORIGINAL

DEPTH (m)	TOTAL P (mg at/l)	PO_4-P (mg at/l)	NO_3-NO_2 (mg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.0	3.0	0.3	0.4
10	0.3	0.1	2.0	-	0.5
20	0.1	0.0	1.0	-	0.1
30	0.2	0.0	1.5	0.4	0.5
50	0.1	0.0	2.5	0.0	0.9
132	0.6	-	-	0.4	1.1
177	0.2	0.0	1.0	0.0	0.6
265	-	0.2	3.5	0.3	0.6
353	-	0.6	4.0	-	0.2
444	-	-	6.5	-	1.1

INTERPOLATED

DEPTH (m)	TOTAL P (mg at/l)	PO_4-P (mg at/l)	NO_3-NO_2 (mg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.0	3.0	0.3	0.4
10	0.3	0.1	2.0	0.3	0.5
20	0.1	0.0	1.0	0.3	0.1
30	0.2	0.0	1.0	0.4	0.3
50	0.2	0.0	1.0	0.3	0.6
75	0.1	0.0	2.0	0.1	0.2
100	0.2	0.0	2.5	0.1	1.0
150	0.4	0.1	1.5	0.2	0.9
200	0.2	< 0.1	1.5	0.2	0.6
250	-	0.2	3.0	0.7	0.6
300	-	0.4	3.5	-	0.4
400	-	-	5.5	-	0.7

STATION 41

DATE May 6, 1953 LAT. 31°41'N. LONG. 79°00'W. TIME 00
DEPTH 503 WIND 7 , 17 BAR. 21 AIR TEMP: dry 25.6°C, wet 23.3°C
HUMIDITY 83% WEATHER 03 CLOUDS: type 9 , amt. 3 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.00	36.18	23.63	4.75
6	26.92	36.18	23.65	4.55
13	26.96	36.17	23.63	4.63
35	26.35	36.11	23.78	4.71
73	24.50	36.43	24.59	4.63
112	21.66	36.71	25.63	3.90
150	19.29	36.59	26.18	3.49
190	16.60	36.22	26.56	3.41
230	14.32	35.90	26.83	3.17

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.00	36.18	23.63	4.75
10	26.96	36.17	23.63	4.51
20	26.80	36.13	23.65	4.65
30	26.52	36.11	23.73	4.69
50	25.73	36.24	24.07	4.68
75	24.34	36.45	24.66	4.64
100	22.49	36.67	25.37	4.18
150	19.29	36.59	26.18	3.49
200	15.99	36.10	26.61	3.35

STATION 41

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.1	0.0	1.0	0.8	0.3
6	-	0.0	1.0	-	0.7
13	-	0.1	0.5	1.6	0.1
35	-	0.1	-	1.2	0.4
73	-	0.0	1.0	-	0.5
112	-	0.3	1.0	0.7	0.4
150	-	0.5	4.0	-	0.5
190	-	1.1	1.0	1.2	0.7
230	-	1.0	1.0	-	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.1	0.0	1.0	0.8	0.3
10	-	< 0.1	0.5	1.4	0.3
20	-	0.1	0.5	1.5	0.2
30	-	0.1	0.5	1.3	0.3
50	-	< 0.1	1.0	1.1	0.4
75	-	0.0	1.0	0.9	0.5
100	-	0.2	1.0	0.8	0.4
150	-	0.5	4.0	0.9	0.5
200	-	1.1	1.0	1.2	0.7

STATION 42

DATE May 6, 1953 LAT. 31°57'N. LONG. 79°18'W. TIME 04
DEPTH 137 WIND -, - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type -, amt. - SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.16	34.85	24.08	5.44
10	21.89	34.81	24.12	5.14
20	22.41*	36.08*	24.94	4.95
50	16.57	36.07	26.45	3.41
75	14.84	35.96	26.76	3.23
100	13.30	35.68	26.88	2.92

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.16	34.85	24.08	5.44
10	21.89	34.81	24.12	5.14
20	20.94	35.02	24.54	4.95
30	19.05	35.61	25.49	4.42
50	16.57	36.07	26.45	3.41
75	14.84	35.96	26.76	3.23
100	13.30	35.68	26.88	2.92

STATION 42

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.2	1.5	-	-
10	-	< 0.1	0.5	-	0.8
20	-	0.3	1.0	4.8	1.0
50	-	0.3	4.0	-	0.2
75	-	1.0	2.0	-	0.4
100	-	1.2	3.5	-	1.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.2	1.5	-	-
10	-	< 0.1	0.5	-	0.8
20	-	0.3	1.0	4.8	1.0
30	-	0.3	2.0	-	0.7
50	-	0.3	4.0	-	0.2
75	-	1.0	2.0	-	0.4
100	-	1.2	3.5	-	1.2

STATION 43

DATE May 6, 1953 LAT. 32°12'N. LONG. 79°33'W. TIME 08
DEPTH 31 WIND 4 , 17 BAR. 19 AIR TEMP: dry 23.9 °C, wet 22.8 °C
HUMIDITY 91 % WEATHER 02 CLOUDS: type 8 , amt. 4 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.63	-	-	5.04
10	22.34	-	-	5.03
20	20.12	36.14	25.62	4.60

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.63	-	-	5.04
10	22.34	-	-	5.03
20	20.12	36.14	25.62	4.60

STATION 43

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	0.0	1.2	0.2
10	-	< 0.1	0.0	-	0.6
20	-	< 0.1	3.0	0.0	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	0.0	1.2	0.2
10	-	< 0.1	0.0	0.6	0.6
20	-	< 0.1	3.0	0.0	0.0

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STATION 44

DATE May 6, 1953 LAT. 32°26'N. LONG. 79°50'W. TIME 12
DEPTH 15 WIND 3 , 18 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 2 , amt. 6 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.01	33.58	23.16	5.29
10	19.59	34.36	24.40	5.03

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.01	33.58	23.16	5.29
10	19.59	34.36	24.40	5.03

STATION 44

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	< 0.1	0.0	5.1	0.5
10	-	0.2	1.5	0.5	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	< 0.1	0.0	5.1	0.5
10	-	0.2	1.5	0.5	0.9

STATION 45

DATE May 6,1953 LAT. 32°40'N. LONG. 79°32'W. TIME 14
DEPTH 15 WIND 5 , 20 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 1 , amt. 4 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.04	33.44	23.04	5.44
10	19.04	34.75	24.84	5.68

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.04	33.44	23.04	5.44
10	19.04	34.75	24.84	5.68

STATION 45

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.2	1.0	-	1.8
10	-	0.0	1.5	-	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.2	1.0	-	1.8
10	-	0.0	1.5	-	0.5

STATION 46

DATE May 6, 1953 LAT. 32°54'N. LONG. 79°16'W. TIME 17
DEPTH 11 WIND 5 , 20 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 03 CLOUDS: type 8 , amt. 6 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.31	33.91	23.33	5.12

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.31	33.91	23.33	5.12

STATION 46

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	0.5	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	0.5	-	1.0

STATION 47

DATE May 6, 1953 LAT. 32°40'N. LONG. 79°00'W. TIME 20
DEPTH 29 WIND 7, 18 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 18 CLOUDS: type 9, amt. 8 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 5 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.32	34.56	23.81	5.14
10	20.20	34.78	24.56	5.36
20	18.06	35.99	26.03	4.53

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.32	34.56	23.81	5.14
10	20.20	34.78	24.56	5.36
20	18.06	35.99	26.03	4.53

STATION 47

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	1.5	-	1.0
10	-	0.0	1.5	-	1.8
20	-	0.5	2.0	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	1.5	-	1.0
10	-	0.0	1.5	-	1.8
20	-	0.5	2.0	-	0.3

STATION 48

DATE May 6, 1953 LAT. 32°24' N. LONG. 78°43' W. TIME 24
DEPTH 366 WIND 10, 20 BAR. 17 AIR TEMP: dry 23.9 °C, wet 21.7 °C
HUMIDITY 83 % WEATHER 96 CLOUDS: type 8, amt. 8 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 5 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.25	36.26	24.54	4.91
10	24.13	36.27	24.58	4.98
20	22.58	36.34	25.09	5.06
50	18.71	36.35	26.14	4.21
100	15.86	36.17	26.70	3.17
150	13.73	35.80	26.88	3.04
200	10.46	35.35	27.16	3.09
250	8.53	35.08	27.28	3.03
300	6.76	34.96	27.44	3.17

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.25	36.26	24.54	4.91
10	24.13	36.27	24.58	4.98
20	22.58	36.34	25.09	5.06
30	21.11	36.35	25.51	5.00
50	18.71	36.35	26.14	4.21
75	17.20	36.28	26.47	3.55
100	15.86	36.17	26.70	3.17
150	13.73	35.80	26.88	3.04
200	10.46	35.35	27.16	3.09
250	8.53	35.08	27.28	3.03
300	6.76	34.96	27.44	3.17

STATION 48

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.5	0.5	4.6	0.8
10	-	0.5	2.5	-	-
20	-	0.0	2.0	-	0.3
50	-	0.9	2.5	0.0	0.3
100	-	0.8	3.5	-	0.2
150	-	1.3	11.0	-	0.8
200	-	1.7	3.5	1.7	0.4
250	-	1.8	9.0	-	0.4
300	-	2.1	5.5	1.1	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.5	0.5	4.6	0.8
10	-	0.5	2.5	-	0.6
20	-	0.0	2.0	-	0.3
30	-	0.3	2.0	-	0.3
50	-	0.9	2.5	0.0	0.3
75	-	0.9	3.0	-	0.3
100	-	0.8	3.5	-	0.2
150	-	1.3	11.0	-	0.8
200	-	1.7	3.5	1.7	0.4
250	-	1.8	9.0	1.4	0.4
300	-	2.1	5.5	1.1	0.8

STATION 49

DATE May 7, 1953 LAT. 32°12' N. LONG. 78°25' W. TIME 04
DEPTH 338 WIND 11, 18 BAR. 16 AIR TEMP: dry 25.0 °C, wet 22.8 °C
HUMIDITY 82 % WEATHER 29 CLOUDS: type 9, amt. 3 SEA: dir. 18, amt. 5
SWELL: dir. 18, amt. 5 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.77	36.11	24.57	4.87
9	23.75	36.14	24.60	4.87
18	23.78	36.18	24.62	4.95
45	20.83	36.26	25.52	5.16
90	14.92	35.96	26.75	3.33
135	13.26	35.70	26.90	3.25
180	10.63	35.38	27.16	2.92
226	7.90	35.05	27.35	3.17
273	6.76	34.95	27.43	3.25

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.77	36.11	24.57	4.87
10	23.76	36.15	24.60	4.87
20	23.58	36.19	24.69	4.97
30	22.52	36.24	25.03	5.05
50	19.96	36.22	25.72	5.00
75	16.42	36.06	26.48	3.97
100	14.63	35.91	26.77	3.30
150	12.39	35.59	26.99	3.15
200	9.25	35.21	27.26	3.03
250	7.11	34.97	27.40	3.21

STATION 49

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	< 0.1	0.5	1.6	0.2
9	-	< 0.1	1.5	4.2	-
18	-	< 0.1	1.0	1.1	1.3
45	-	0.3	0.5	1.1	1.5
90	-	1.0	9.0	4.2	0.7
135	-	1.3	14.0	1.8	0.3
180	1.6	1.7	19.5	1.6	0.6
226	-	1.9	21.5	-	0.1
273	2.4	1.7	24.5	-	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	< 0.1	0.5	1.6	0.2
10	-	< 0.1	1.5	3.8	0.8
20	-	0.1	1.0	1.1	1.3
30	-	0.2	1.0	1.1	1.4
50	-	0.4	1.5	1.5	1.4
75	-	0.8	6.0	3.2	1.0
100	-	1.1	10.0	3.7	0.6
150	-	1.4	15.5	1.7	0.4
200	1.8	1.8	20.5	1.6	0.4
250	2.2	1.8	23.0	-	0.3

STATION 53

DATE May 7, 1953 LAT. 32°50'N. LONG. 78°05'W. TIME 18
DEPTH 164 WIND 8 , 19 BAR. 15 AIR TEMP: dry 23.3 °C, wet 22.2 °C
HUMIDITY 91% WEATHER 95 CLOUDS: type 9 , amt. 8 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 4 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.57	36.35	24.51	4.73
10	24.59	36.35	24.51	4.79
20	24.60	36.34	24.50	4.79
50	22.62	36.43	25.15	-
100	18.36	36.36	26.24	3.53
150	14.64	35.95	26.80	3.39

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.57	36.35	24.51	4.73
10	24.59	36.35	24.51	4.79
20	24.60	36.34	24.50	4.79
30	23.99	36.38	24.71	4.66
50	22.62	36.43	25.15	4.35
75	20.42	36.41	25.74	3.95
100	18.36	36.36	26.24	3.53
150	14.64	35.95	26.80	3.39

STATION 53

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.9	0.0	0.5	-	0.3
10	1.6	0.0	0.5	-	0.2
20	-	0.4	< 0.5	-	0.9
50	1.8	0.0	0.0	-	1.0
100	4.3	1.3	8.5	8.8	0.4
150	2.3	1.4	5.0	-	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.9	0.0	0.5	-	0.3
10	1.6	0.0	0.5	-	0.2
20	1.6	0.4	< 0.5	-	0.9
30	1.7	0.3	< 0.5	-	0.9
50	1.8	0.0	0.0	-	1.0
75	3.1	0.7	4.5	-	0.7
100	4.3	1.3	8.5	8.8	0.4
150	2.3	1.4	5.0	-	0.6

STATION 54

DATE May 7, 1953 LAT. 33°03' N. LONG. 78°21' W. TIME 21
DEPTH 30 WIND 6, 19 BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 7, amt. 8 SEA: dir. -, amt. -
SWELL: dir. -, amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.03	34.25	23.66	5.11
10	22.04	35.93	24.93	5.28
20	21.00	36.15	25.39	5.20

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.03	34.25	23.66	5.11
10	22.04	35.93	24.93	5.28
20	21.00	36.15	25.39	5.20

STATION 54

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	3.0	0.2	0.5	-	0.3
10	3.9	0.0	1.0	-	0.9
20	1.1	0.0	2.0	3.0	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	3.0	0.2	0.5	-	0.3
10	3.9	0.0	1.0	-	0.9
20	1.1	0.0	2.0	3.0	0.3

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STATION 55

DATE May 8, 1953 LAT. 33°17'N. LONG. 78°38'W. TIME 00
DEPTH 18 WIND - , - BAR. - AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 01 CLOUDS: type 8, amt. 3 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.35	33.77	23.21	5.11
10	20.34	35.70	25.22	5.20

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.35	33.77	23.21	5.11
10	20.34	35.70	25.22	5.20

STATION 55

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.0	0.0	-	1.4
10	3.2	0.2	1.0	15.2	1.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.0	0.0	-	1.4
10	3.2	0.2	1.0	15.2	1.4

STATION 56

DATE May 8, 1953 LAT. 33°32' N. LONG. 78°55' W. TIME 03
DEPTH 9 WIND 10 ,24 BAR. 13 AIR TEMP: dry 21.7 °C, wet 21.1 °C
HUMIDITY 95 % WEATHER 01 CLOUDS: type - ,amt. 2 SEA: dir. 22 ,amt. 3
SWELL: dir. 18 ,amt. 4 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.26	33.49	23.30	5.11

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.26	33.49	23.30	5.11

STATION 56

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.1	0.0	1.5	1.0	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.1	0.0	1.5	1.0	1.3

STATION 57

DATE May 8, 1953 LAT. 33°34'N. LONG. 78°25'W. TIME 06
DEPTH 20 WIND 8 , 22 BAR. 12 AIR TEMP: dry 21.1 °C, wet 20.6 °C
HUMIDITY 96% WEATHER 13 CLOUDS: type - , amt. 0 SEA: dir. 25 , amt. 3
SWELL: dir. 18 , amt. 4 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.47	33.66	23.37	5.52
10	21.00	33.75	23.56	5.28

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.47	33.66	23.37	5.52
10	21.00	33.75	23.56	5.28

STATION 57

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.5	0.0	0.0	0.3
10	1.4	0.0	< 0.5	-	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.5	0.0	0.0	0.3
10	1.4	0.0	< 0.5	-	0.4

STATION 58

DATE May 8, 1953 LAT. 33°36'N. LONG. 77°56'W. TIME 09
DEPTH 20 WIND 5 , 27 BAR. 12 AIR TEMP: dry 20.6°C, wet 19.4°C
HUMIDITY 90% WEATHER 13 CLOUDS: type 9 , amt. 1 SEA: dir. 27 , amt. 2
SWELL: dir. 22 , amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.24	33.76	23.51	5.07
10	19.41	35.29	25.16	4.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.24	33.76	23.51	5.07
10	19.41	35.29	25.16	4.99

STATION 58

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	4.1	0.2	0.0	0.5	0.5
10	2.7	0.2	0.5	0.2	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	4.1	0.2	0.0	0.5	0.5
10	2.7	0.2	0.5	0.2	0.2

STATION 59

DATE May 8, 1953 LAT. 33°22'N. LONG. 77°37'W. TIME 12
DEPTH 22 WIND 6 , 29 BAR. 14 AIR TEMP: dry 22.8 °C, wet 19.4 °C
HUMIDITY 73 % WEATHER 01 CLOUDS: type 0 , amt. 1 SEA: dir. 29 , amt. 1
SWELL: dir. 20 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.39	35.10	24.48	4.98
10	21.00	35.32	24.76	5.11

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.39	35.10	24.48	4.98
10	21.00	35.32	24.76	5.11

STATION 59

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.8	0.0	0.5	-	0.3
10	3.4	0.1	0.5	7.0	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.8	0.0	0.5	-	0.3
10	3.4	0.1	0.5	7.0	0.1

STATION 60

DATE May 8, 1953 LAT. 33°07'N. LONG. 77°20'W. TIME 14
DEPTH 265 WIND 2 , 32 BAR. 15 AIR TEMP: dry 24.4 °C, wet 20.6 °C
HUMIDITY 71% WEATHER 01 CLOUDS: type 1 , amt. 1 SEA: dir. - , amt. 1
SWELL: dir. 22 , amt. 4 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.75	35.65	24.80	5.03
10	21.73	35.80	24.92	5.07
20	22.41	36.15	24.99	5.03
50	19.15	36.34	26.02	4.38
75	17.89	36.31	26.32	3.90
100	16.00	36.11	26.62	3.49
150	14.12	35.84	26.83	3.25
200	12.33	35.64	27.04	3.33

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.75	35.65	24.80	5.03
10	21.73	35.80	24.92	5.07
20	22.41	36.15	24.99	5.03
30	21.11	36.24	25.43	4.75
50	19.15	36.34	26.02	4.38
75	17.89	36.31	26.32	3.90
100	16.00	36.11	26.62	3.49
150	14.12	35.84	26.83	3.25
200	12.33	35.64	27.04	3.33

STATION 60

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.0	0.0	-	1.0
10	1.3	0.2	< 0.5	0.9	0.7
20	2.0	0.0	0.5	-	0.3
50	2.4	0.2	3.0	5.3	0.2
75	1.8	0.7	-	2.7	0.2
100	-	0.9	10.5	0.4	0.7
150	2.3	1.2	11.0	-	1.0
200	2.5	1.3	10.5	-	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.0	0.0	-	1.0
10	1.3	0.2	< 0.5	0.9	0.7
20	2.0	0.0	0.5	2.0	0.3
30	2.1	0.1	1.5	3.1	0.3
50	2.4	0.2	3.0	5.3	0.2
75	1.8	0.7	7.0	2.7	0.2
100	2.0	0.9	10.5	0.4	0.7
150	2.3	1.2	11.0	-	1.0
200	2.5	1.3	10.5	-	0.1

STATION 61

DATE May 8, 1953 LAT. 32°54'N. LONG. 77°04'W. TIME 18
DEPTH 512 WIND 2 , 32 BAR. 14 AIR TEMP: dry 23.3 °C, wet 18.9 °C
HUMIDITY 66% WEATHER 02 CLOUDS: type 6 , amt. 3 SEA: dir. - , amt. -
SWELL: dir. 18 , amt. 4 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24,08	36.20	24.55	4.75
10	23.61	36.18	24.67	4.86
20	23.58	36.18	24.68	4.79
50	17.25	35.99	26.23	3.90
75	13.22	35.66	26.88	3.17
100	11.15	35.39	27.07	2.84
150	9.72	35.21	27.18	2.84
200	8.82	35.15	27.28	2.96
300	7.93	35.01	27.31	3.00
400	7.59	34.99	27.35	3.17

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.08	36.20	24.55	4.75
10	23.61	36.18	24.67	4.86
20	23.58	36.18	24.68	4.79
30	21.29	36.14	25.30	4.50
50	17.25	35.99	26.23	3.90
75	13.22	35.66	26.88	3.17
100	11.15	35.39	27.07	2.84
150	9.72	35.21	27.18	2.84
200	8.82	35.15	27.28	2.96
250	8.25	35.07	27.31	2.97
300	7.93	35.01	27.31	3.00
400	7.59	34.99	27.35	3.17

STATION 61

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.0	1.0	-	0.0
10	0.3	0.0	2.0	0.2	0.4
20	1.3	0.1	< 0.5	5.3	0.3
50	1.4	0.5	7.0	2.7	0.0
75	2.0	1.5	12.0	-	0.3
100	-	1.9	4.5	6.8	0.8
150	-	1.9	3.5	0.7	0.5
200	3.0	2.2	4.5	0.9	1.4
300	3.5	2.0	11.0	0.3	0.7
400	-	2.1	19.0	-	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.0	1.0	-	0.0
10	0.3	0.0	2.0	0.2	0.4
20	1.3	0.1	< 0.5	5.3	0.3
30	1.3	0.2	2.5	4.4	0.2
50	1.4	0.5	7.0	2.7	0.0
75	2.0	1.5	12.0	4.8	0.3
100	2.2	1.9	4.5	6.8	0.8
150	2.6	1.9	3.5	0.7	0.5
200	3.0	2.2	4.5	0.9	1.4
250	3.3	2.1	7.5	0.6	1.0
300	3.5	2.0	11.0	0.3	0.7
400	-	2.1	19.0	-	0.2

STATION 62

DATE May 8, 1953 LAT. 32°43'N. LONG. 76°48'W. TIME 22

DEPTH 805 WIND 3, 16 BAR. 12 AIR TEMP: dry 23.9°C, wet 20.0°C

HUMIDITY 70% WEATHER 02 CLOUDS: type 8, amt. 3 SEA: dir. 14, amt. 2

SWELL: dir. 14, amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.00	36.24	23.99	4.57
8	25.82	36.27	24.07	4.63
13	25.78	36.27	24.08	4.63
28	25.55	36.31	24.18	4.63
54	24.47	36.44	24.61	4.63
106	21.27	36.43	25.53	4.79
157	19.63	36.60	26.10	3.37
209	17.62	36.36	26.42	3.41
316*	21.35	36.40	25.48	4.79
425	14.90	36.02	26.80	3.41

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.00	36,24	23.99	4.57
10	25.80	36.27	24.07	4.63
20	25.75	36.29	24.11	4.63
30	25.48	36.32	24.21	4.63
50	24.66	36.43	24.55	4.63
75	22.99	36.44	25.05	4.69
100	21.56	36.43	25.45	4.77
150	19.87	36.58	26.02	3.42
200	17.79	36.39	26.41	3.41
250	17.00	36.29	26.52	3.41
300	16.37	36.20	26.60	3.41
400	15.19	36.14	26.83	3.41

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.1	0.0	3.0	1.6	0.0
8	0.3	0.1	0.5	0.0	0.0
13	0.1	< 0.1	-	-	0.4
28	0.0	0.0	0.5	0.2	0.5
54	0.2	0.1	1.0	-	0.5
106	0.0	< 0.1	1.5	1.4	1.1
157	-	1.4	2.5	0.0	0.4
209	-	0.7	2.5	-	0.8
316*	-	0.0	1.0	0.2	0.4
425	-	1.4	6.5	-	1.5

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.1	0.0	3.0	1.6	0.0
10	0.2	0.1	0.5	< 0.1	0.1
20	< 0.1	< 0.1	0.5	0.1	0.4
30	< 0.1	0.0	0.5	0.2	0.5
50	0.2	0.1	1.0	0.5	0.5
75	0.1	0.1	1.0	0.9	0.7
100	< 0.1	< 0.1	1.5	1.3	1.0
150	-	1.4	2.5	0.0	0.4
200	-	0.7	2.5	-	0.8
250	-	0.8	3.5	-	0.9
300	-	1.0	4.0	-	1.0
400	-	1.3	5.0	-	1.2

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STATION 63

DATE May 9, 1953 LAT. 33°15'N. LONG. 76°23'W. TIME 02
DEPTH 753 WIND 8 , 19 BAR. 13 AIR TEMP: dry 23.9 °C, wet 20.6 °C
HUMIDITY 74% WEATHER 02 CLOUDS: type 8 , amt. 4 SEA: dir. 19 , amt. 2
SWELL: dir. 17 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.04	36.36	24.38	4.61
5	24.91	36.36	24.42	4.71
7	24.96	36.40	24.43	4.75
13	24.85	36.37	24.44	4.77
33	24.60	36.35	24.50	4.71
75	21.35	36.40	25.48	4.87
114	16.80	35.91	26.28	3.82
155	14.69	35.80	26.67	3.17
232*	19.78	36.38	25.89	4.87
280*	15.42	35.90	26.59	3.41

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.04	36.36	24.38	4.61
10	24.90	36.38	24.43	4.77
20	24.79	36.36	24.45	4.75
30	24.69	36.35	24.48	4.72
50	23.49	36.37	24.85	4.77
75	21.35	36.40	25.48	4.87
100	18.15	36.04	26.05	4.21
150	14.77	35.80	26.66	3.24

STATION 63

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.0	1.0	4.3	0.2
5	0.3	0.0	1.0	-	0.1
7	0.1	0.0	0.5	0.0	1.1
13	0.1	0.1	2.0	1.3	0.4
33	0.2	0.0	1.0	-	0.6
75	0.2	0.0	0.5	-	-
114	-	0.7	4.5	3.5	0.4
155	-	1.0	3.5	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.0	1.0	4.3	0.2
10	0.1	< 0.1	1.0	0.7	0.8
20	0.1	< 0.1	1.5	1.5	0.5
30	0.2	< 0.1	1.0	1.7	0.6
50	0.2	0.0	1.0	2.1	0.6
75	0.2	0.0	0.5	2.6	0.5
100	-	0.4	3.0	3.2	0.4
150	-	1.0	3.5	2.5	0.9

STATION 64

DATE May 9, 1953 LAT. 33°33'N. LONG. 76°56'W. TIME 07
DEPTH 68 WIND 12, 26 BAR. 10 AIR TEMP: dry 22.2 °C, wet 20.6 °C
HUMIDITY 86% WEATHER 13 CLOUDS: type 8, amt. 3 SEA: dir. 26, amt. 3
SWELL: dir. 17, amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.62	36.24	24.71	4.94
10	23.55	36.24	24.73	4.98
20	19.50	36.40	25.98	4.79
50	18.69	36.40	26.19	3.73

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.62	36.24	24.71	4.94
10	23.55	36.24	24.73	4.98
20	19.50	36.40	25.98	4.79
30	19.20	36.40	26.06	4.50
50	18.69	36.40	26.19	3.73

STATION 64

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.1	0.0	0.0	-	0.1
10	0.3	0.0	2.0	-	0.1
20	0.2	0.2	1.0	-	0.3
50	-	0.7	4.0	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.1	0.0	0.0	-	0.1
10	0.3	0.0	2.0	-	0.1
20	0.2	0.2	1.0	-	0.3
30	-	0.4	2.0	-	0.3
50	-	0.7	4.0	-	0.3

STATION 65

DATE May 9, 1953 LAT. 33°42'N. LONG. 76°56'W. TIME 10
DEPTH 42 WIND 6, 25 BAR. 11 AIR TEMP: dry 21.1 °C, wet 20.0 °C
HUMIDITY 90% WEATHER 13 CLOUDS: type 8, amt. 3 SEA: dir. 25, amt. 1
SWELL: dir. 16, amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.94	35.59	24.70	5.02
10	21.98	35.64	24.73	4.95
20	21.69	36.08	25.14	4.87
30	20.17	36.42	25.82	4.24

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.94	35.59	24.70	5.02
10	21.98	35.64	24.73	4.95
20	21.69	36.08	25.14	4.87
30	20.17	36.42	25.82	4.24

STATION 65

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.0	1.5	-	0.5
10	0.3	0.0	1.5	-	1.2
20	0.3	0.0	0.5	-	0.1
30	0.4	0.1	2.0	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.0	1.5	-	0.5
10	0.3	0.0	1.5	-	1.2
20	0.3	0.0	0.5	-	0.1
30	0.4	0.1	2.0	-	0.3

STATION 66

DATE May 9, 1953 LAT. 33°57'N. LONG. 77°13'W. TIME 12
DEPTH 28 WIND 7 , 35 BAR. 13 AIR TEMP: dry 20.6 °C, wet 17.2 °C
HUMIDITY 72 % WEATHER 01 CLOUDS: type 3 , amt. 1 SEA: dir. 32 , amt. 2
SWELL: dir. 22 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.20	34.36	23.97	5.16
10	20.83	34.85	24.45	5.20
20	19.46	36.19	25.83	4.38

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.20	34.36	23.97	5.16
10	20.83	34.85	24.45	5.20
20	19.46	36.19	25.83	4.38

STATION 66

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.0	0.1	0.0	-	1.8
10	0.5	< 0.1	1.0	0.0	0.4
20	0.2	0.1	1.5	-	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.0	0.1	0.0	-	1.8
10	0.5	< 0.1	1.0	0.0	0.4
20	0.2	0.1	1.5	-	0.4

STATION 67

DATE May 9, 1953 LAT. 34°11' N. LONG. 77°30' W. TIME 15
DEPTH 16 WIND 3 , 18 BAR. 14 AIR TEMP: dry 18.9 °C, wet 16.7 °C
HUMIDITY 80 % WEATHER 01 CLOUDS: type - , amt. 0 SEA: dir. - , amt. 1
SWELL: dir. - , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	20.63	34.22	24.02	5.28
10	19.50	35.71	25.45	4.75

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	20.63	34.22	24.02	5.28
10	19.50	35.71	25.45	4.75

STATION 67

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.0	0.5	-	1.8
10	0.3	< 0.1	-	0.0	< 0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.0	0.5	-	1.8
10	0.3	< 0.1	-	0.0	< 0.1

STATION 68

DATE May 9, 1953 LAT. 34°23'N. LONG. 77°10'W. TIME 19
DEPTH 20 WIND 4, 22 BAR. 12 AIR TEMP: dry 21.7°C, wet 17.2°C
HUMIDITY 64% WEATHER 03 CLOUDS: type 8, amt. 2 SEA: dir. 22, amt. 1
SWELL: dir. 22, amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.14	34.76	24.29	5.16
10	20.32	34.76	24.51	5.28

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.14	34.76	24.29	5.16
10	20.32	34.76	24.51	5.28

STATION 68

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	< 0.1	1.0	-	0.2
10	0.4	< 0.1	0.5	-	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	< 0.1	1.0	-	0.2
10	0.4	< 0.1	0.5	-	0.6

STATION 69

DATE May 9, 1953 LAT. 34°32'N. LONG. 76°50'W. TIME 21
DEPTH 20 WIND 4, 22 BAR. 12 AIR TEMP: dry 22.8°C, wet 18.9°C
HUMIDITY 70% WEATHER 03 CLOUDS: type 6, amt. 3 SEA: dir. 22, amt. 1
SWELL: dir. 22, amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.02	34.60	24.20	5.22
10	20.29	34.63	24.42	5.28

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.02	34.60	24.20	5.22
10	20.29	34.63	24.42	5.28

STATION 69

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.0	0.5	-	0.6
10	0.4	0.0	1.0	-	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.0	0.5	-	0.6
10	0.4	0.0	1.0	-	0.8

STATION 70

DATE May 10, 1953 LAT. 34°18'N. LONG. 76°32'W. TIME 00
DEPTH 26 WIND 3, 20 BAR. 13 AIR TEMP: dry 22.2°C, wet 18.9°C
HUMIDITY 73% WEATHER 13 CLOUDS: type 4, amt. 2 SEA: dir. 22, amt. 2
SWELL: dir. 18, amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	20.78	34.60	24.27	5.28
10	20.14	34.61	24.45	5.36
20	19.21	35.68	25.50	5.11

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	20.78	34.60	24.27	5.28
10	20.14	34.61	24.45	5.36
20	19.21	35.68	25.50	5.11

STATION 70

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.0	1.5	0.0	2.0
10	0.4	0.0	0.5	0.0	< 0.1
20	0.3	< 0.1	0.5	1.9	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.0	1.5	0.0	2.0
10	0.4	0.0	0.5	0.0	< 0.1
20	0.3	< 0.1	0.5	1.9	0.7

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STATION 71

DATE May 10, 1953 LAT. 34°04'N. LONG. 76°15'W. TIME 03
DEPTH 118 WIND 8, 32 BAR. 13 AIR TEMP: dry 22.2°C, wet 18.9°C
HUMIDITY 73% WEATHER 03 CLOUDS: type -, amt. - SEA: dir. 22, amt. 2
SWELL: dir. 18, amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.23	36.36	24.32	4.71
10	25.27	36.33	24.28	4.63
20	25.00	36.36	24.39	4.79
50	24.36	36.36	24.58	4.95
75	23.06	36.38	24.98	4.87
100	21.48	36.42	25.46	4.87

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.23	36.36	24.32	4.71
10	25.27	36.33	24.28	4.63
20	25.00	36.36	24.39	4.79
30	24.90	36.36	24.42	4.86
50	24.36	36.36	24.58	4.95
75	23.06	36.38	24.98	4.87
100	21.48	36.42	25.46	4.87

STATION 71

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	< 0.1	2.0	-	< 0.1
10	0.4	0.3	1.0	-	0.1
20	0.3	0.0	0.5	-	0.6
50	0.3	0.2	0.5	0.0	0.3
75	0.3	< 0.1	1.0	-	1.3
100	0.8	0.0	0.5	-	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	< 0.1	2.0	-	< 0.1
10	0.4	0.3	1.0	-	0.1
20	0.3	0.0	0.5	-	0.6
30	0.3	0.1	0.5	-	0.5
50	0.3	0.2	0.5	0.0	0.3
75	0.3	< 0.1	1.0	-	1.3
100	0.8	0.0	0.5	-	0.1

STATION 72

DATE May 10, 1953 LAT. 33°49'N. LONG. 75°59'W. TIME 07
DEPTH 594 WIND 6 , 36 BAR. 12 AIR TEMP: dry 22.2 °C, wet 17.2 °C
HUMIDITY 61% WEATHER 13 CLOUDS: type 9, amt. 3 SEA: dir. 36 , amt. 2
SWELL: dir. 32 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.40	36.29	24.21	4.63
6	25.44	36.30	24.21	4.63
12	25.43	36.33	24.23	4.67
30	24.42	36.43	24.62	4.55
61	22.65	36.49	25.18	4.47
89	20.48	36.40	25.72	4.79
116	19.10	36.46	26.13	3.73
162	14.19	35.93	26.88	3.37
336	11.50	35.51	27.10	3.33
418	8.09	35.03	27.30	3.04

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.40	36.29	24.21	4.63
10	25.44	36.32	24.22	4.64
20	25.23	36.35	24.31	4.63
30	24.42	36.43	24.62	4.55
50	23.25	36.46	24.99	4.49
75	21.60	36.46	25.46	4.63
100	19.85	36.43	25.91	4.25
150	14.95	36.06	26.82	3.43
200	13.58	35.84	26.94	3.35
250	12.80	35.73	27.02	3.34
300	12.02	35.62	27.08	3.33
400	8.88	35.14	27.27	3.10

STATION 72

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.1	0.0	-	1.6
6	0.5	0.1	3.5	0.0	0.0
12	0.6	< 0.1	1.0	1.6	0.3
30	0.3	0.0	1.0	-	0.2
61	0.5	0.0	0.5	0.0	1.4
89	0.4	-	2.0	0.0	0.2
116	0.4	0.4	4.5	-	1.2
162	-	1.1	7.0	-	0.7
336	-	1.8	2.5	1.2	0.3
418	-	2.5	9.0	-	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.1	0.0	-	1.6
10	0.6	0.1	2.0	1.0	0.2
20	0.5	< 0.1	1.0	1.3	0.3
30	0.3	0.0	1.0	1.0	0.2
50	0.4	0.0	0.5	0.4	1.0
75	0.5	0.1	1.0	0.0	0.8
100	0.4	0.3	3.0	0.1	0.6
150	-	0.9	6.5	0.3	0.8
200	-	1.3	6.0	0.5	0.6
250	-	1.5	4.5	0.8	0.5
300	-	1.7	3.5	1.0	0.4
400	-	2.4	7.5	-	0.5

STATION 73

DATE May 10, 1953 LAT. 34°10'N. LONG. 75°20'W. TIME 12
DEPTH 3109 WIND 4, 09 BAR. 12 AIR TEMP: dry 20.6°C, wet 16.7°C
HUMIDITY 68% WEATHER 18 CLOUDS: type 4, amt. 2 SEA: dir. 09, amt. 2
SWELL: dir. 09, amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.74	36.11	23.97	4.63
10	25.74	36.10	23.96	4.63
20	25.77	36.11	23.96	4.63
50	25.21	36.27	24.26	4.47
100	22.63	36.54	25.23	4.71
150	21.39	36.65	25.66	4.55
200	20.08	36.65	26.02	4.34
250	18.80	36.56	26.28	4.30
300	18.18	36.46	26.36	4.34
380*	-	36.18	-	4.55
400	16.31	36.18	26.60	3.45
458*	13.44	35.74	26.89	3.13
614	11.00*	35.41*	27.11	3.09
768	11.61	35.52	27.09	2.60
925	9.89	35.53*	27.40	2.44
1161*	7.37	35.09	27.46	2.84
1560*	4.44	35.01	27.77	5.52

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.74	36.11	23.97	4.63
10	25.74	36.10	23.96	4.63
20	25.77	36.11	23.96	4.63
30	25.67	36.16	24.03	4.57
50	25.21	36.27	24.26	4.47
75	23.75	36.43	24.82	4.58
100	22.63	36.54	25.23	4.71
150	21.39	36.65	25.66	4.55
200	20.08	36.65	26.02	4.34
250	18.80	36.56	26.28	4.30
300	18.18	36.46	26.36	4.34
400	16.31	36.18	26.60	3.45

STATION 73

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	< 0.1	0.5	-	0.3
10	0.4	0.0	0.5	1.0	0.9
20	0.4	0.0	0.5	4.6	0.6
50	0.5	0.0	1.0	-	1.0
100	0.6	0.0	1.0	0.0	0.3
150	0.3	0.2	1.5	-	1.0
200	0.4	0.3	1.5	-	1.2
250	0.4	0.2	4.0	-	0.7
300	0.5	0.2	2.5	-	0.5
380*	-	0.7	2.0	-	0.3
400	0.4	0.0	-	0.4	0.5
458*	-	1.0	3.0	2.7	0.8
614	-	1.6	17.5	2.9	0.7
768	-	1.2	18.5	-	1.0
925	-	1.8	6.5	-	1.7
1161*	-	1.6	4.0	-	0.3
1560	-	1.0	2.0	-	0.6

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	< 0.1	0.5	-	0.3
10	0.4	0.0	0.5	1.0	0.9
20	0.4	0.0	0.5	4.6	0.6
30	0.4	0.0	0.5	4.0	0.7
50	0.5	0.0	1.0	2.8	1.0
75	0.5	0.0	1.0	1.5	0.7
100	0.6	0.0	1.0	0.0	0.3
150	0.3	0.2	1.5	0.1	1.0
200	0.4	0.3	1.5	0.1	1.2
250	0.4	0.2	4.0	0.2	0.7
300	0.5	0.2	2.5	0.3	0.5
400	0.4	0.0	-	0.4	0.5

STATION 74

DATE May 10, 1953 LAT. 34°24' N. LONG. 75°36' W. TIME 18
DEPTH 2103 WIND 12, 36 BAR. 13 AIR TEMP: dry 21.7 °C, wet 16.7 °C
HUMIDITY 61 % WEATHER 03 CLOUDS: type 8, amt. 2 SEA: dir. 36, amt. 3
SWELL: dir. 00, amt. 0 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.98	36.15	23.93	4.41
10	25.98	36.13	23.91	4.63
19	26.01	36.09	23.87	4.55
48	24.95	36.27	24.34	4.26
97	22.64	36.54	25.22	4.46
195	18.35	36.51	26.36	3.65
293	15.84	36.15	26.69	3.41
344	13.42	35.75	26.91	-
391*	-	35.65	-	3.33
403	11.69	35.51	27.06	3.25
540	6.15	35.08	27.62	4.06
676	4.60	35.07	27.80	5.11
819	4.14	34.99	27.78	6.17
960	4.02	35.07*	27.86	6.01
1031	3.99	34.97	27.78	6.01

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.98	36.15	23.93	4.41
10	25.98	36.13	23.91	4.63
20	25.98	36.10	23.89	4.55
30	25.63	36.16	24.04	4.42
50	24.85	36.28	24.37	4.26
75	23.66	36.44	24.85	4.40
100	22.48	36.54	25.27	4.44
150	20.10	36.53	25.92	4.01
200	18.29	36.50	26.37	3.64
250	17.29	36.37	26.51	3.51
300	15.46	36.08	26.72	3.40
400	11.79	35.52	27.05	3.26
500	7.35	35.16	27.52	3.83
600	5.33	35.08	27.72	4.52
800	4.18	34.99	27.78	6.06
1000	4.00	34.97	27.78	6.01

STATION 74

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	<0.1	1.0	-	-
10	0.4	0.0	6.0	-	0.8
19	0.4	0.0	3.0	0.6	0.1
48	0.2	0.0	1.5	-	0.4
97	0.3	0.1	0.5	0.1	0.8
195	0.3	0.4	7.0	-	0.1
293	-	0.8	4.0	2.6	0.7
344	-	1.2	5.5	-	1.0
391*	-	1.3	7.5	-	0.4
403	-	1.3	7.5	0.6	1.3
540	-	1.6	21.0	1.6	0.4
676	-	1.5	5.0	-	0.9
819	-	1.4	14.0	-	0.5
960	-	1.4	4.5	-	0.8
1031	-	1.2	9.5	-	0.2

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	<0.1	1.0	-	-
10	0.4	0.0	6.0	-	0.8
20	0.4	0.0	3.0	0.6	0.1
30	0.3	0.0	2.5	0.5	0.2
50	0.2	<0.1	1.5	0.4	0.4
75	0.3	<0.1	1.0	0.2	0.6
100	0.3	0.1	1.0	0.1	0.8
150	0.3	0.3	4.0	0.7	0.4
200	-	0.4	7.0	1.3	0.1
250	-	0.6	5.5	1.9	0.4
300	-	0.9	4.0	2.6	0.7
400	-	1.3	7.5	0.6	1.3
500	-	1.5	17.0	1.3	0.7
600	-	1.5	14.0	-	0.6
700	-	1.5	6.5	-	0.8
800	-	1.4	13.0	-	0.5
1000	-	1.3	6.5	-	0.5

STATION 75

DATE May 11, 1953 LAT. 34°39' N. LONG. 75°53' W. TIME 00
DEPTH 39 WIND 11 , 04 BAR. 14 AIR TEMP: dry 20.0 °C, wet 16.7 °C
HUMIDITY 72 % WEATHER 01 CLOUDS: type 0 , amt. 1 SEA: dir. 04 , amt. 3
SWELL: dir. 36 , amt. 4 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.25	35.64	24.93	5.11
10	21.24	35.61	24.91	5.11
20	20.74	35.61	25.05	5.28
30	19.99	36.02	25.56	5.03

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.25	35.64	24.93	5.11
10	21.24	35.61	24.91	5.11
20	20.74	35.61	25.05	5.28
30	19.99	36.02	25.56	5.03

STATION 75

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.1	< 0.1	3.0	-	-
10	0.2	0.1	1.0	-	0.2
20	0.3	< 0.1	4.0	-	0.4
30	0.0	0.0	2.5	-	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.1	< 0.1	3.0	-	-
10	0.2	0.1	1.0	-	0.2
20	0.3	< 0.1	4.0	-	0.4
30	0.0	0.0	2.5	-	0.5

STATION 76

DATE May 11, 1953 LAT. 34°53' N. LONG. 76°10' W. TIME 03
DEPTH 14 WIND 5 , 07 BAR. 14 AIR TEMP: dry 20.0 °C, wet 17.2 °C
HUMIDITY 76 % WEATHER 02 CLOUDS: type - , amt. - SEA: dir. 04 , amt. 2
SWELL: dir. 04 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	19.85	-	-	5.56
10	19.84	-	-	5.60

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	19.85	-	-	5.56
10	19.84	-	-	5.60

STATION 76

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	0.5	2.2	0.3
10	-	0.0	0.5	0.3	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	0.5	2.2	0.3
10	-	0.0	0.5	0.3	0.1

STATION 77

DATE May 11, 1953 LAT. 35°01'N. LONG. 75°45'W. TIME 06
DEPTH 21 WIND 5 , 36 BAR. 13 AIR TEMP: dry 20.0 °C, wet 16.1 °C
HUMIDITY 67% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 00 , amt. 0
SWELL: dir. 00 , amt. 0 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	20.05	35,62	25.24	5.28
10	20.04	35.62	25.24	5.28

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	20.05	35.62	25.24	5.28
10	20.04	35.62	25.24	5.28

STATION 77

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.0	< 0.5	-	0.8
10	0.2	0.0	1.5	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.0	< 0.5	-	0.8
10	0.2	0.0	1.5	-	0.9

STATION 78

DATE May 11, 1953 LAT. 35°06'N. LONG. 75°21'W. TIME 09
DEPTH 30 WIND 10 , 36 BAR. 12 AIR TEMP: dry 19.4 °C, wet 16.1 °C
HUMIDITY 71 % WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. 36 , amt. 2
SWELL: dir. 36 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	19.96	35.07	24.94	4.47
10	19.94	35.07	24.85	4.42
20	19.76	35.12	24.94	4.57

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	19.96	35.07	24.84	4.47
10	19.94	35.07	24.85	4.42
20	19.76	35.12	24.94	4.57

STATION 78

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.2	< 0.5	5.0	0.4
10	0.1	0.0	1.5	8.5	0.2
20	0.2	0.1	0.0	1.2	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.2	< 0.5	5.0	0.4
10	0.1	0.0	1.5	8.5	0.2
20	0.2	0.1	0.0	1.2	0.9

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STATION 79

DATE May 11, 1953 LAT. 34°57' N. LONG. 74°59' W. TIME 12
DEPTH 2743 WIND 14 , 36 BAR. 12 AIR TEMP: dry 21.7 °C, wet 18.3 °C
HUMIDITY 73 % WEATHER 03 CLOUDS: type 3 , amt. 2 SEA: dir. 36 , amt. 4
SWELL: dir. 36 , amt. 4 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.35	36.27	24.21	4.71
7	25.34	36.27	24.22	4.71
15	25.39	36.26	24.19	4.63
40	25.36	36.27	24.21	4.65
80	22.65	36.51	25.20	4.71
163	17.79	36.38	26.40	3.33
246	13.66	35.79	26.89	3.17
331	10.27	35.28	27.14	2.92

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.35	36.27	24.21	4.71
10	25.36	36.27	24.21	4.68
20	25.38	36.16	24.20	4.63
30	25.37	36.27	24.21	4.64
50	24.66	36.35	24.48	4.67
75	22.98	36.49	25.09	4.71
100	21.41	36.49	25.53	4.50
150	18.50	36.40	26.24	3.42
200	15.85	36.11	26.65	3.25
250	13.48	35.76	26.90	3.16
300	11.41	35.45	27.07	3.03

STATION 79

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	< 0.1	1.0	-	0.5
7	0.5	0.0	< 0.5	-	0.2
15	0.3	0.0	3.5	-	0.5
40	0.3	0.1	0.5	-	0.5
80	-	0.5	2.0	1.5	0.1
163	-	0.7	7.0	6.7	0.2
246	-	1.1	10.0	-	0.2
331	-	1.6	25.5	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	< 0.1	1.0	-	0.5
10	0.4	0.0	1.5	-	0.3
20	0.3	< 0.1	3.0	-	0.5
30	0.3	0.1	1.5	-	0.5
50	-	0.2	1.0	-	0.4
75	-	0.5	2.0	-	0.1
100	-	0.5	3.0	2.8	0.1
150	-	0.7	6.0	5.9	0.2
200	-	0.9	8.5	-	0.2
250	-	1.1	10.0	-	0.2
300	-	1.4	20.0	-	0.3

STATION 80

DATE May 12, 1953 LAT. 34°38' N. LONG. 74°46' W. TIME 17
DEPTH 3109 WIND 6 , 36 BAR. 15 AIR TEMP: dry 23.3°C, wet 19.4°C
HUMIDITY 70% WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. 36 , amt. 2
SWELL: dir. 04 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.69	36.17	24.03	4.55
10	25.65	36.15	24.03	4.63
19	25.64	36.18	24.06	4.71
47	25.64	36.22	24.09	4.71
95	22.46	36.40	25.17	4.87
191	19.86	36.56	26.01	4.87
288	18.41	36.51	26.34	3.49*
386	16.73*	36.51*	26.75	4.14
475	15.81	36.14	26.69	3.65
570	13.06	35.70	26.94	3.25
665	10.90	35.41	27.13	3.09
760	8.15	35.08	27.33	3.33
950	4.99	35.03	27.72	5.36
1140	4.27	34.99	27.77	5.85
1426	3.92	34.96	27.78	6.09
1910	3.66	34.96	27.81	6.09

* Value questionable

STATION 80

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.0	0.0	0.0	1.3
10	0.1	0.1	1.0	-	0.3
19	0.2	0.0	1.0	4.7	0.5
47	0.4	0.0	0.5	1.6	1.0
95	-	0.0	11.5*	0.0	0.6
191	0.3	< 0.1	0.5	5.5	-
288	-	0.5	5.0	5.1	0.3
386	-	0.5	7.5	-	0.3
475	-	1.0	13.0	-	0.6
570	1.0	1.0	19.0	-	0.1
665	-	1.5	19.5	1.8	0.7
760	-	1.5	15.5	1.3	0.4
950	-	2.0	11.5	1.8	1.1
1140	-	1.4	14.0	-	0.1
1426	-	1.1	13.5	-	0.4
1910	-	-	12.5	-	1.4

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.69	36.17	24.03	4.55
10	25.65	36.15	24.03	4.63
20	25.64	36.18	24.06	4.71
30	25.64	36.19	24.06	4.71
50	25.40	36.23	24.17	4.72
75	23.63	36.33	24.78	4.81
100	22.30	36.41	25.22	4.87
150	20.83	36.52	25.72	4.87
200	19.73	36.55	26.03	4.86
250	19.00	36.54	26.22	4.72
300	18.27	36.50	26.37	4.59
400	16.88	36.32	26.57	4.07
500	15.03	36.01	26.76	3.55
600	12.44	35.61	27.00	3.19
800	7.15	35.07	27.47	4.00
1000	4.73	35.02	27.74	5.54
1200	4.18	34.98	27.77	5.93
1500	3.85	34.96	27.79	6.09

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.0	0.0	0.0	1.3
10	0.1	0.1	1.0	2.3	0.3
20	0.2	0.0	1.0	4.7	0.5
30	0.3	0.0	1.0	3.5	0.7
50	0.4	0.0	0.5	1.6	1.0
75	0.4	0.0	0.5	0.7	0.8
100	0.4	0.0	0.5	0.0	0.6
150	0.3	< 0.1	0.5	2.8	0.5
200	0.3	< 0.1	0.5	5.5	0.4
250	0.4	0.3	3.0	5.3	0.4
300	0.5	0.5	5.5	5.0	0.3
400	0.8	0.6	8.5	4.1	0.3
500	1.0	1.0	14.5	3.3	0.5
600	-	1.2	19.0	2.4	0.3
700	-	1.5	18.0	1.6	0.6
800	-	1.6	14.5	1.4	0.5
1000	-	1.8	12.0	1.8	0.8
1200	-	1.3	14.0	-	0.2
1500	-	1.1	13.0	-	0.5

STATION Standard 1

DATE April 19, 1953 LAT. 26°19'N. LONG. 76°44'W. TIME 21
DEPTH 4754 WIND 3 , 18 BAR. 16 AIR TEMP: dry 25.6°C, wet 22.2°C
HUMIDITY 75% WEATHER 03 CLOUDS: type 0 , amt. 8 SEA: dir. 18 , amt. 3
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. 26

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.00**	36.42	24.43	4.77
9	24.83	36.43	24.49	4.68
47	23.92	36.47	24.80	4.76
94	23.28	36.67	25.14	4.78
142	22.13	36.69	25.48	4.62
190	20.35	36.67	25.96	4.62
288	18.50	36.55	26.35	4.46
387	17.63	36.47	26.51	4.26
487	16.29	36.24	26.65	3.95
587	13.87	35.84	26.88	3.69
687	10.90	35.41	27.13	3.22

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.00	36.42	24.43	4.77
10	24.83	36.43	24.49	4.68
20	24.72	36.43	24.53	4.69
30	24.51	36.44	24.60	4.72
50	23.78	36.49	24.85	4.77
75	23.54	36.61	25.02	4.77
100	23.17	36.67	25.17	4.76
150	21.79	36.69	25.58	4.62
200	20.12	36.66	26.01	4.60
250	19.10	36.59	26.23	4.52
300	18.42	36.55	26.37	4.43
400	17.52	36.45	26.52	4.22
500	16.01	36.19	26.68	3.91
600	13.52	35.79	26.92	3.62

STATION Standard 1

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.3	0.5	0.2	0.4
9	-	0.4	0.0	-	0.1
47	-	-	1.0	0.9	0.9
94	-	0.8	< 0.5	1.6	0.4
142	-	0.7	0.5	-	0.3
190	-	0.5	2.0	-	< 0.1
288	-	0.7	1.5	1.9	0.8
387	-	0.8	7.0	-	0.7
487	-	1.3	2.5	-	0.4
587	-	1.0	0.5*	-	2.0
687	2.2	1.5	7.0	-	0.1

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.3	0.5	0.2	0.4
10	-	0.4	0.0	0.4	0.1
20	-	0.5	0.5	0.5	0.3
30	-	0.5	0.5	0.6	0.5
50	-	0.6	1.0	0.9	0.9
75	-	0.7	0.5	1.3	0.6
100	-	0.8	< 0.5	1.6	0.4
150	-	0.7	0.5	1.7	0.2
200	-	0.5	2.0	1.8	0.1
250	-	0.6	1.5	1.8	0.5
300	-	0.7	2.0	1.9	0.8
400	-	0.9	6.5	-	0.7
500	-	1.3	3.0	-	0.6
600	2.2	1.1	5.0	-	1.7

STATION Standard 2

DATE April 19, 1953 LAT. 26°19' N. LONG. 76°43' W. TIME 24
DEPTH 4755 WIND 7 , 22 BAR. 16 AIR TEMP: dry 25.6 °C, wet 23.3 °C
HUMIDITY 83 % WEATHER 03 CLOUDS: type 0 , amt. 7 SEA: dir. 22 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.80**	36.40	24.48	4.70
9	24.80	36.42	24.50	4.68
48	23.84	36.55	24.88	4.78
97	23.19	36.61	25.12	4.76
146	21.95	36.66	25.51	4.64
195	20.26	36.62	25.95	4.82
294	18.42	36.59	26.40	4.54
393	17.56	36.44	26.50	4.66
493	16.09	36.22	26.68	3.97
593	13.80	35.85	26.90	3.65
693	10.99	35.48	27.17	3.24

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.80	36.40	24.48	4.70
10	24.77	36.42	24.50	4.68
20	24.49	36.46	24.62	4.72
30	24.23	36.50	24.73	4.75
50	23.82	36.55	24.89	4.78
75	23.55	36.58	24.99	4.77
100	23.13	36.62	25.14	4.75
150	21.79	36.66	25.56	4.65
200	20.14	36.62	25.98	4.82
250	19.12	36.60	26.23	4.67
300	18.38	36.58	26.40	4.55
400	17.48	36.43	26.51	4.63
500	15.95	36.19	26.69	3.94
600	13.62	35.82	26.92	3.63

STATION Standard 3

DATE April 20, 1953 LAT. 26°19'N. LONG. 76°43'W. TIME 02
DEPTH 4754 WIND 7 , 22 BAR. 16 AIR TEMP: dry 25.6°C, wet 23.3°C
HUMIDITY 82% WEATHER 01 CLOUDS: type - , amt. 0 SEA: dir. 22 , amt. 2
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.80**	36.40	24.48	4.70
9	24.82	36.35	24.44	-
48	23.79	36.55	24.90	4.84
97	23.25	36.69	25.16	-
146	22.07	36.70	25.51	4.60
195	20.33	36.71	26.00	-
295	18.51	36.51	26.32	4.46
394	17.58	36.42	26.48	-
494	16.16	36.19	26.64	3.99
593	13.84	35.82	26.87	-
693	11.28	35.44	27.09	3.32

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.80	36.40	24.48	4.70
10	24.79	36.36	24.45	4.73
20	24.48	36.41	24.58	4.77
30	24.20	36.47	24.71	4.80
50	23.78	36.56	24.91	4.84
75	23.50	36.64	25.05	4.77
100	23.19	36.69	25.18	4.71
150	21.91	36.70	25.55	4.59
200	20.22	36.70	26.02	4.55
250	19.22	36.59	26.20	4.50
300	18.47	36.51	26.33	4.44
400	17.52	36.41	26.49	4.22
500	16.03	36.17	26.66	3.98
600	13.67	35.79	26.88	3.71

STATION Standard 4

DATE April 20, 1953 LAT. 26°17'N. LONG. 76°41'W. TIME 05
DEPTH 4663 WIND 9 , 22 BAR. 15 AIR TEMP: dry 25.0°C, wet 23.3°C
HUMIDITY 87% WEATHER 01 CLOUDS: type 0 , amt. 7 SEA: dir. 22 , amt. 2
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.80**	36.38	24.47	4.70
10	24.66	36.38	24.51	4.70
48	23.74	36.47	24.85	4.78
96	23.09	36.70	25.22	4.70
143	22.24	36.71	25.47	4.62
190	20.75	36.74	25.90	4.86
283	18.60	36.62	26.38	4.54
374	17.58	36.40	26.46	4.29
464	16.42	36.22	26.61	3.97
553	14.04	35.86	26.86	3.73
643*	20.52	36.70	25.94	4.46

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.80	36.38	24.47	4.70
10	24.66	36.38	24.51	4.70
20	24.38	36.40	24.61	4.71
30	24.13	36.42	24.70	4.74
50	23.70	36.48	24.87	4.78
50	23.27	36.63	25.11	4.74
100	23.00	36.70	25.24	4.69
150	22.10	36.72	25.51	4.63
200	20.47	36.73	25.97	4.84
250	19.23	36.67	26.26	4.66
300	18.42	36.58	26.39	4.50
400	17.37	36.37	26.49	4.21
500	15.60	36.10	26.70	3.86

STATION Standard 5

DATE April 20, 1953 LAT. 26°19'N. LONG. 76°43'W. TIME 08
DEPTH 5303 WIND 10, 22 BAR. 14 AIR TEMP: dry 24.7°C, wet 22.8°C
HUMIDITY 87% WEATHER 01 CLOUDS: type 8, amt. 3 SEA: dir. 20, amt. 2
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.70**	36.36	24.48	4.74
9	24.73	36.36	24.47	-
43	23.94	36.44	24.77	5.31
91	23.30	36.64	25.11	-
137	22.63	36.66	25.32	4.90
184	20.81	36.63	25.80	-
278	18.62	36.56	26.33	4.84
374	17.67	36.42	26.46	-
473	16.33	36.19	26.60	4.46
572	14.21	35.88	26.84	-
672	11.69	35.51	27.06	3.45

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.70	36.36	24.48	4.74
10	24.70	36.36	24.48	4.86
20	24.44	36.38	24.57	5.05
30	24.21	36.40	24.66	5.23
50	23.85	36.48	24.83	5.30
75	23.52	36.59	25.01	5.19
100	23.20	36.65	25.15	5.07
150	22.21	36.65	25.43	4.88
200	20.35	36.62	25.92	4.87
250	19.14	36.59	26.22	4.85
300	18.43	36.54	26.36	4.81
400	17.39	36.37	26.49	4.62
500	15.79	36.11	26.67	4.34
600	13.54	35.78	26.90	3.84

STATION Standard 5

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.2	1.0	-	0.6
9	0.3	0.3	1.5	-	0.2
43	0.5	0.2	0.5	-	0.9
91	1.1	0.1	0.5	-	0.1
137	1.7	-	0.5	9.3	0.0
184	0.2	0.0	0.5	0.7	0.0
278	1.0	0.1	1.5	-	0.1
374	1.6	0.7	4.5	1.4	0.2
473	0.9	0.8	4.5	-	0.3
572	-	1.2	6.0	-	1.7
672	2.6	-	6.0	-	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.2	1.0	-	0.6
10	0.3	0.3	1.5	-	0.2
20	0.4	0.3	1.0	-	0.4
30	0.4	0.2	1.0	-	0.6
50	0.6	0.2	0.5	-	0.8
75	0.9	0.1	0.5	-	0.4
100	1.2	0.1	0.5	-	0.1
150	1.3	$<$0.1	0.5	6.9	0.0
200	0.3	$<$0.1	0.5	0.7	0.0
250	0.7	0.1	1.0	0.9	0.1
300	1.1	0.2	2.0	1.1	0.1
400	1.4	0.7	4.5	1.5	0.2
500	1.1	0.9	5.0	-	0.7
600	2.0	-	6.0	-	1.3

STATION Standard 6

DATE April 20, 1953 LAT. 26°19' N. LONG. 76°44' W. TIME 11
DEPTH 4572 WIND 6 , 22 BAR. 15 AIR TEMP: dry 25.0 °C, wet 22.8 °C
HUMIDITY 83 % WEATHER 03 CLOUDS: type 3 , amt. 7 SEA: dir. 20 , amt. 2
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.80**	36.38	24.47	4.74
9	24.81	36.38	24.46	4.66
46	23.97	36.40	24.73	4.72
91	23.30	36.64	25.11	4.84
137	22.44	36.67	25.38	4.85
185	20.62	36.57	25.81	4.78
281	18.68	36.53	26.29	4.46
379	17.70	36.37	26.41	4.36
478	16.36	36.20	26.60	4.05
577	14.30	35.88	26.82	3.73
677	11.57	35.48	27.06	3.22

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.80	36.38	24.47	4.74
10	24.78	36.38	24.47	4.66
20	24.53	36.39	24.55	4.67
30	24.30	36.39	24.62	4.68
50	23.92	36.42	24.76	4.73
75	23.56	36.58	24.99	4.81
100	23.20	36.65	25.15	4.85
150	21.89	36.64	25.51	4.83
200	20.25	36.56	25.90	4.74
250	19.20	36.54	26.16	4.58
300	18.52	36.50	26.31	4.43
400	17.48	36.33	26.44	4.30
500	15.96	36.14	26.65	3.99
600	13.73	35.79	26.87	3.62

STATION Standard 7

DATE April 20, 1953 LAT. 26°20' N. LONG. 76°40' W. TIME 14
DEPTH 4938 WIND 9 , 36 BAR. 16 AIR TEMP: dry 23.9 °C, wet 20.0 °C
HUMIDITY 70 % WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 36 , amt. 2
SWELL: dir. 20 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.80**	36.36	24.45	4.72
8	24.76	36.35	24.45	4.70
42	23.98	36.39	24.72	4.86
85	23.59	36.55	24.96	4.86
127	23.00	36.71	25.25	4.66
170	22.00	36.67	25.51	4.58
255	19.22	36.64	26.23	4.35
340	18.13	36.52	26.42	4.46
425	17.48	36.48	26.55	4.13
509	16.07	36.22	26.69	4.03
594	13.73	-	-	-
994	5.56	35.06	27.68	4.78
1192	4.44	35.02	27.78	5.53
1488	3.70	34.96	27.81	5.78
1982	3.64	34.97	27.82	5.82
2475	3.30	34.96	27.85	5.65
2967	2.83	34.92	27.86	5.87
3944	2.51	34.90	27.87	5.27

** From BT

STATION Standard 7

OBSERVED

DEPTH (m)	TOTAL P (μg at/l)	PO_4-P (μg at/l)	NO_3-NO_2 (μg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.3	1.0	-	0.4
8	-	0.4	0.5	-	1.5
42	0.4	0.0	0.5	-	0.0
85	< 0.1	0.0	0.5	0.2	0.5
127	0.7	0.0	1.0	-	0.4
170	-	1.0	0.5	-	-
255	0.3	-	2.0	-	-
340	0.3	-	4.5	-	0.1
425	-	1.0	3.5	3.3	1.2
509	1.6	1.0	1.0	-	0.4
994	-	1.0	17.0	-	0.3
1192	-	1.2	10.5	-	0.3
1488	-	1.1	1.5	6.1	0.7
1982	-	0.9	-	3.8	0.2
2475	-	0.9	6.5	-	0.7
2967	-	1.1	6.5	-	0.1
3944	-	0.8	1.5	-	1.3

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INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.80	36.36	24.45	4.72
10	24.70	36.35	24.47	4.70
20	24.48	36.36	24.55	4.78
30	24.19	36.37	24.64	4.84
50	23.92	36.42	24.76	4.86
75	23.70	36.51	24.89	4.86
100	23.37	36.61	25.07	4.78
150	22.50	36.69	25.38	4.62
200	21.02	36.66	25.77	4.51
250	19.25	36.65	26.23	4.36
300	18.59	36.57	26.34	4.42
400	17.70	36.50	26.51	4.22
500	16.26	36.25	26.67	4.03
600	13.55	35.93	27.02	4.11
800	8.54	35.39	27.52	4.44
1000	5.52	35.06	27.68	4.80
1200	4.41	35.02	27.78	5.55
1500	3.70	34.96	27.81	5.78
2000	3.63	34.97	27.82	5.82
2500	3.27	34.96	27.85	5.65
3000	2.81	34.92	27.86	5.85

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.3	1.0	-	0.4
10	-	0.4	0.5	-	1.4
20	-	0.2	0.5	-	1.0
30	-	0.1	0.5	-	0.5
50	0.3	0.0	0.5	-	0.1
75	0.1	0.0	0.5	0.2	0.4
100	0.3	0.0	0.5	-	0.5
150	-	0.5	0.5	-	0.4
200	-	1.0	1.0	-	0.3
250	-	1.0	2.0	-	0.2
300	-	1.0	3.5	-	0.2
400	-	1.0	3.5	3.3	0.9
500	1.6	1.0	1.0	-	0.5
600	-	-	-	-	-
700	-	-	-	-	-
800	-	-	-	-	-
1000	-	1.0	17.0	-	0.3
1200	-	1.2	10.5	-	0.3
1500	-	1.1	1.5	6.1	0.7
2000	-	0.9	-	3.8	0.2
2500	-	0.9	6.5	-	0.7
3000	-	1.1	6.5	-	0.1
4000	-	0.8	1.5	-	1.3

STATION Standard 8

DATE April 20, 1953 LAT. 26°20'N. LONG. 76°44'W. TIME 22
DEPTH 4755 WIND 12 , 34 BAR. 16 AIR TEMP: dry 22.2 °C, wet 18.3 °C
HUMIDITY 69 % WEATHER 60 CLOUDS: type 7, amt. 8 SEA: dir. 22 , amt. 2
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.70**	36.38	24.50	4.93
9	24.62	36.36	24.50	4.70
39	23.90	36.42	24.77	4.76
78	23.65	36.58	24.96	4.78
118	23.04	36.58	25.14	4.74
160	21.94	36.65	25.51	4.50
244	19.36	36.64	26.20	4.30
333	18.16	36.49	26.39	4.38
428	17.09	36.34	26.54	4.11
526	15.67	36.30	26.84	-
625*	22.98	36.60	25.17	4.78

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.70	36.38	24.50	4.93
10	24.60	36.36	24.51	4.70
20	24.30	36.38	24.62	4.72
30	24.00	36.40	24.72	4.75
50	23.86	36.48	24.82	4.77
75	23.68	36.57	24.94	4.78
100	23.37	36.58	25.04	4.76
150	22.21	36.64	25.42	4.56
200	20.54	36.65	25.89	4.40
250	19.27	36.63	26.21	4.30
300	18.56	36.54	26.33	4.37
400	17.43	36.37	26.48	4.18
500	16.08	36.31	26.75	-

STATION Standard 9

DATE April 21, 1953 LAT. 26°20' N. LONG. 76°44' W. TIME 01

DEPTH 4755 WIND 8 , 35 BAR. 18 AIR TEMP: dry 20.6 °C, wet 16.1 °C

HUMIDITY 63 % WEATHER 02 CLOUDS: type 0 , amt. 3 SEA: dir. 36 , amt. 3

SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.60**	36.43	24.56	4.74
9	24.48	36.37	24.55	4.78
38	23.98	36.42	24.74	4.80
76	23.61	36.53	24.93	4.72
116	23.02	36.62	25.18	4.70
154	22.15	36.68	25.47	4.54
237	19.47	36.61	26.15	4.23
316	18.19	36.49	26.38	4.40
418	17.20	36.37	26.53	4.05
513	15.32	36.05	26.73	3.89
610	13.28	35.73	26.92	3.49

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.60	36.43	24.56	4.74
10	24.46	36.37	24.56	4.78
20	24.27	36.39	24.63	4.80
30	24.10	36.40	24.69	4.80
50	23.88	36.46	24.80	4.78
75	23.62	36.53	24.93	4.72
100	23.17	36.59	25.11	4.71
150	22.28	36.67	25.43	4.56
200	20.65	36.66	25.87	4.35
250	19.23	36.59	26.19	4.24
300	18.39	36.51	26.35	4.38
400	17.42	36.39	26.50	4.10
500	15.63	36.10	26.70	3.97
600	13.46	35.76	26.90	3.54

STATION Standard 10

DATE April 21, 1953 LAT. 26°18'N. LONG. 76°44'W. TIME 04
DEPTH - WIND 7 , 36 BAR. 18 AIR TEMP: dry 20.0 °C, wet 14.2 °C
HUMIDITY 54% WEATHER 02 CLOUDS: type - , amt. - SEA: dir. 32 , amt. 2
SWELL: dir. 36 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.30**	36.36	24.60	4.78
8	24.25	36.36	24.62	4.78
41	23.90	36.37	24.73	4.80
82	23.55	36.58	24.99	4.84
125	22.93	36.65	25.22	4.65
168	21.82	36.62	25.52	4.71
259	19.47	36.61	26.15	4.33
354	18.08	36.44	26.37	4.42
451	16.51	36.38*	26.71	4.05
551	14.80	35.98	26.79	3.40
650	12.41	35.57	26.97	3.81

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.30	36.36	24.60	4.78
10	24.23	36.36	24.62	4.78
20	24.15	36.36	24.65	4.78
30	24.02	36.37	24.69	4.79
50	23.84	36.40	24.77	4.80
75	23.62	36.52	24.92	4.83
100	23.31	36.61	25.08	4.82
150	22.35	36.63	25.38	4.70
200	20.98	36.62	25.75	4.59
250	19.60	36.61	26.11	4.35
300	18.85	36.53	26.25	4.37
400	17.40	36.35	26.47	4.31
500	15.75	36.13	26.69	3.69
600	13.68	35.81	26.90	3.57

STATION Special 1

DATE May 13, 1953 LAT. 34°00' N. LONG. 74°18' W. TIME 01
DEPTH 4114 WIND 5 , 01 BAR. 15 AIR TEMP: dry 22.2 °C, wet 20.6 °C
HUMIDITY 86 % WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.99	36.44	25.05	4.73
10	22.83	36.40	25.06	4.74
20	22.65	36.41	25.12	4.89
50	20.28	36.56	25.89	4.92
100	19.65	36.56	26.06	4.89
200	18.54	36.53	26.32	4.96
300	18.06	36.49	26.42	4.89
400	17.48	36.48	26.55	4.19
470	16.48	36.24*	26.61	4.01
565	15.05	-	-	3.83
660	13.20	35.79	26.98	3.50
755	10.86	35.44	27.16	3.28
949	7.36	35.16	27.51	4.01
1142	5.42	35.11	27.73	4.89
1434	4.53	35.12	27.85	5.48
1926	3.82	35.12	27.92	5.77

* Value questionable

STATION Special 1

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.1	0.1	0.5	-	0.4
10	0.2	0.0	1.5	-	0.1
20	0.1	< 0.1	1.0	-	0.3
50	0.7	0.0	0.5	0.0	1.0
100	0.1	0.0	1.5	0.0	0.7
200	-	0.3	2.0	0.0	0.1
300	0.3	0.3	14.5*	-	0.7
400	0.3	-	1.0	-	1.5
470	-	0.4	2.0	3.5	1.0
565	-	0.5	3.0	-	1.5
660	-	0.9	4.5	-	0.4
755	-	1.2	4.5	0.0	0.7
949	-	1.6	9.5	0.3	-
1142	-	-	20.0	-	0.8
1434	-	1.3	14.0	4.3	0.6
1926	-	1.3	12.0	2.0	0.5

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.99	36.44	25.05	4.73
10	22.83	36.40	25.06	4.74
20	22.65	36.41	25.12	4.89
30	21.69	36.47	25.44	4.91
50	20.28	36.56	25.89	4.92
75	19.96	36.56	25.98	4.90
100	19.65	36.56	26.06	4.89
150	19.02	36.55	26.22	4.93
200	18.54	36.53	26.32	4.96
250	18.31	36.51	26.37	4.94
300	18.06	36.49	26.42	4.89
400	17.48	36.48	26.55	4.19
500	16.07	36.24	26.70	3.95
600	14.43	35.97	26.86	3.71
800	9.91	35.35	27.26	3.44
1000	6.74	35.14	27.59	4.26
1200	5.22	35.11	27.76	5.03
1500	4.38	35.12	27.86	5.53

INTERPOLATED

DEPTH (m)	TOTAI P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.1	0.1	0.5	-	0.4
10	0.2	0.0	1.5	-	0.1
20	0.1	< 0.1	1.0	-	0.3
30	0.3	< 0.1	1.0	-	0.5
50	0.7	0.0	0.5	0.0	1.0
75	0.4	0.0	1.0	0.0	0.9
100	0.1	0.0	1.5	0.0	0.7
150	-	0.2	2.0	0.0	0.4
200	-	0.3	2.0	0.0	0.1
250	-	0.3	2.0	0.7	0.4
300	0.3	0.3	1.5	1.3	0.7
400	0.3	0.3	1.0	2.6	1.5
500	-	0.4	2.5	2.9	1.1
600	-	0.7	3.5	1.8	1.1
700	-	1.0	4.5	0.6	0.5
800	-	1.3	5.5	0.1	0.7
1000	-	1.6	12.5	0.3	0.8
1200	-	1.4	19.0	-	0.8
1500	-	1.3	14.0	4.3	0.6
2000	-	1.3	12.0	2.0	0.5

STATION Special 2

DATE May 13, 1953 LAT. 33°00' N. LONG. 75°01' W. TIME 11

DEPTH 4206 WIND 2 , 36 BAR. 16 AIR TEMP: dry 25.0 °C, wet 21.7 °C

HUMIDITY 74 % WEATHER 02 CLOUDS: type - , amt. 1 SEA: dir. - , amt. -

SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.12	36.18	24.22	4.60
10	25.14	36.18	24.21	4.45
20	24.95	36.17	24.26	4.53
50	23.00	36.48	25.07	4.67
100	21.71	36.59	25.53	4.74
200	19.67	36.64	26.12	4.16
300	18.38	36.55	26.38	4.74
400	17.84	36.47	26.45	4.67
500	16.95	36.38	26.60	4.09
600	15.72	36.15	26.71	3.87
700	13.71	35.82	26.90	3.47
800	11.98	35.52	27.01	3.07
1000	7.80	35.16	27.45	3.65
1200	5.48	35.03	27.66	4.96
1500	4.32	35.02	27.79	5.62
2000	3.79	35.05	27.87	5.91

STATION Special 2

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	<0.1	1.5	-	0.5
10	0.2	0.0	1.0	-	0.7
20	0.3	0.2	4.0	-	0.4
50	0.2	0.0	4.0	-	0.9
100	0.0	0.0	1.5	-	1.1
200	0.1	0.1	1.5	-	0.4
300	0.4	0.0	9.0	0.0	0.1
400	-	0.3	1.0*	0.0	0.8
500	0.7	0.4	4.0	0.4	0.8
600	1.4	0.4	8.5	0.2	0.6
700	-	0.9	8.0	-	0.2
800	1.3	1.2	7.5	3.1	0.3
1000	-	1.7	21.0	-	0.9
1200	-	1.2	14.5	4.0	0.5
1500	-	1.1	16.5	0.0	0.4
2000	-	1.0	11.0	-	0.3

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.12	36.18	24.22	4.60
10	25.14	36.18	24.21	4.45
20	24.95	36.17	24.26	4.53
30	24.20	36.29	24.58	4.58
50	23.00	36.48	25.07	4.67
75	22.33	36.54	25.31	4.71
100	21.71	36.59	25.53	4.74
150	20.60	36.63	25.86	4.44
200	19.67	36.64	26.12	4.16
250	18.93	36.59	26.27	4.42
300	18.38	36.55	26.38	4.74
400	17.84	36.47	26.45	4.67
500	16.95	36.38	26.60	4.09
600	15.72	36.15	26.71	3.87
800	11.98	35.52	27.01	3.07
1000	7.80	35.16	27.45	3.65
1200	5.48	35.03	27.66	4.96
1500	4.32	35.02	27.79	5.62
2000	3.79	35.05	27.87	5.91

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	< 0.1	1.5	-	0.5
10	0.2	0.0	1.0	-	0.7
20	0.3	0.2	4.0	-	0.4
30	0.3	0.1	4.0	-	0.6
50	0.2	0.0	4.0	-	0.9
75	0.1	0.0	3.0	-	1.0
100	0.0	0.0	1.5	-	1.1
150	<0.1	< 0.1	1.5	-	0.7
200	0.1	0.1	1.5	-	0.4
250	0.3	< 0.1	5.5	-	0.3
300	0.4	0.0	9.0	0.0	0.1
400	0.6	0.3	6.5	0.0	0.8
500	0.7	0.4	4.0	0.4	0.8
600	1.4	0.4	8.5	0.2	0.6
700	1.4	0.9	8.0	1.7	0.2
800	1.3	1.2	7.5	3.1	0.3
1000	-	1.7	21.0	3.5	0.9
1200	-	1.2	14.5	4.0	0.5
1500	-	1.1	16.5	0.0	0.4
2000	-	1.0	11.0	-	0.3

STATION Special 3

DATE May 13, 1953 LAT. 32°00'N. LONG. 76°00'W. TIME 22
DEPTH 2743 WIND 3 , 05 BAR. 17 AIR TEMP: dry 25.0°C, wet 23.9°C
HUMIDITY 91% WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. - , amt. 1
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.16	36.22	23.92	4.48
10	25.53	36.20	24.11	4.57
19	25.41	36.21	24.15	4.57
48	22.60	36.44	25.16	4.82
96	21.37	36.51	25.56	4.79
194	19.94	36.65	26.05	4.53
293	18.94	36.62	26.29	4.53
393	18.16	36.55	26.44	4.59
400	17.96	36.51	26.46	4.50
589	17.38	36.40	26.51	4.09
687	15.97	36.20	26.69	3.73
786	13.93	35.86	26.88	3.66
983	8.91	35.26	27.36	3.62
1178	5.69	35.05	27.65	4.68
1475	4.29	35.03	27.80	5.59
1973	3.69	34.97	27.82	5.85

STATION Special 3

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.0	1.0	1.0	0.3
10	0.2	0.1	2.5	-	0.3
19	1.2	0.0	0.5	-	0.3
48	1.0	0.0	1.0	-	0.5
96	0.1	0.0	1.5	1.5	0.9
194	0.1	0.0	1.0	3.4	0.6
293	0.1	< 0.1	1	-	0.0
393	-	0.5	3.5	-	0.6
490	2.0	0.2	3.0	2.1	0.2
589	-	0.6	2.0	0.8	0.3
687	-	0.9	6.5	4.0	0.0
786	-	1.0	8.5	-	0.2
983	-	1.6	6.0	-	-
1178	-	1.6	11.0	-	0.4
1475	-	1.0	7.5	-	0.2
1973	-	1.1	15.0	0.0	0.5

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.16	36.22	23.92	4.48
10	25.53	36.20	24.11	4.57
20	25.29	36.22	24.19	4.57
30	24.16	36.31	24.60	4.67
50	22.54	36.44	25.18	4.32
75	21.87	36.48	25.40	4.81
100	21.30	36.52	25.59	4.77
150	20.53	36.61	25.87	4.63
200	19.87	36.65	26.07	4.53
250	19.35	36.64	26.20	4.53
300	18.87	36.61	26.30	4.53
400	18.10	36.55	26.45	4.58
500	17.92	36.50	26.46	4.47
600	17.25	36.38	26.53	4.05
800	13.51	35.80	26.93	3.66
1000	8.56	35.24	27.40	3.65
1200	5.56	35.05	27.67	4.77
1500	4.21	35.03	27.81	5.62

413792 O - 57 - 17

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.0	1.0	1.0	0.3
10	0.2	0.1	2.5	1.1	0.3
20	1.2	0.0	0.5	1.1	0.3
30	1.1	0.0	0.5	1.2	0.4
50	0.9	0.0	1.0	1.3	0.5
75	0.4	0.0	1.5	1.4	0.7
100	0.1	0.0	1.5	1.6	0.9
150	0.1	0.0	1.0	2.5	0.7
200	0.1	0.0	1.0	3.4	0.6
250	0.1	< 0.1	1.0	3.1	0.3
300	0.2	< 0.1	1.5	2.9	< 0.1
400	1.1	0.5	3.5	2.5	0.6
500	2.0	0.2	3.0	1.9	0.2
600	-	0.6	2.5	1.2	0.3
700	-	0.9	7.0	4.0	< 0.1
800	-	1.0	8.0	-	0.2
1000	-	1.6	6.5	-	0.3
1200	-	1.6	11.0	-	0.4
1500	-	1.0	8.0	-	0.2
2000	-	1.1	15.0	0.0	0.5

STATION Special 4

DATE May 14, 1953 LAT. 31°00' N. LONG. 77°00' W. TIME 09
DEPTH 2834 WIND 2 , 36 BAR. 17 AIR TEMP: dry 23.9 °C, wet 22.8 °C
HUMIDITY 91 % WEATHER 02 CLOUDS: type 0 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.94	36.17	24.26	4.53
10	24.93	36.19	24.28	4.64
20	24.65	36.22	24,39	4.46
50	23.22	36.42	24.97	4.75
100	20.34	36.58	25.89	4.82
200	19.05	36.65	26.29	4.24
300	18.18	36.54	26.42	4.46
400	17.72	36.46	26.48	4.46
500	16.53	36.27	26.62	3.87
600	15.00	36.06	26.81	3.73
700	13.28	35.75	26.93	3.40
800	10.60	35.41	27.19	3.29
1000	-	35.08	-	4.31
1200	4.68	35.05	27.77	5.34
1500	4.04	34.97*	27.78	5.77
2000	3.59	35.00	27.85	5.85

* Value questionable

STATION Special 4

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.1	1.0	-	0.4
10	0.4	0.0	0.0	12.2	0.3
20	0.1	0.0	2.0	-	0.8
50	0.1	0.0	1.0	4.7	0.5
100	0.1	0.0	1.0	-	0.6
200	-	0.2	2.0	1.9	0.2
300	0.3	0.2	3.5	4.5	0.7
400	-	0.2	3.0	2.5	0.3
500	-	0.5	3.5	3.2	0.7
600	-	0.8	2.5	-	0.2
700	-	1.3	1.5	-	0.4
800	-	1.5	9.0	-	0.3
1000	-	1.6	8.0	-	0.2
1200	-	1.3	12.0	5.1	0.9
1500	-	1.5	8.5	-	0.8
2000	-	-	-	-	0.8

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.94	36.17	24.26	4.53
10	24.93	36.19	24.28	4.64
20	24.65	36.22	24.39	4.46
30	24.20	36.30	24.59	4.55
50	23.22	36.42	24.97	4.75
75	21.59	36.51	25.50	4.80
100	20.34	36.58	25.89	4.82
150	19.64	36.64	26.13	4.48
200	19.05	36.65	26.29	4.24
250	18.56	36.59	26.37	4.37
300	18.18	36.54	26.42	4.46
400	17.72	36.46	26.48	4.46
500	16.53	36.27	26.62	3.87
600	15.00	36.06	26.81	3.73
800	10.60	35.41	27.19	3.29
1000	6.92	35.08	27.51	4.31
1200	4.68	35.05	27.77	5.34
1500	4.04	35.02	27.82	5.77
2000	3.59	35.00	27.85	5.85

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.1	1.0	-	0.4
10	0.4	0.0	0.0	12.2	0.3
20	0.1	0.0	2.0	9.7	0.8
30	0.1	0.0	2.0	7.2	0.7
50	0.1	0.0	1.0	4.7	0.5
75	0.1	0.0	1.0	4.3	0.6
100	0.1	0.0	1.0	3.8	0.6
150	0.1	0.1	1.5	2.8	0.4
200	0.2	0.2	2.0	1.9	0.2
250	0.3	0.2	3.0	3.2	0.5
300	0.3	0.2	3.5	4.5	0.7
400	-	0.2	3.0	2.5	0.3
500	-	0.5	3.5	3.2	0.7
600	-	0.8	2.5	-	0.2
700	-	1.3	1.5	-	0.4
800	-	1.5	9.0	-	0.3
1000	-	1.6	8.0	-	0.2
1200	-	1.3	12.0	5.1	0.9
1500	-	1.5	8.5	-	0.8
2000	-	-	-	-	0.8

STATION Special 5

DATE April 18, 1953 LAT. 30°00'N. LONG. 77°00'W. TIME 02
DEPTH 1006 WIND 6 , 16 BAR. 21 AIR TEMP: dry 18.9 °C, wet 12.8 °C
HUMIDITY 48% WEATHER 00 CLOUDS: type - , amt. 0 SEA: dir. - , amt. 2
SWELL: dir. - , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.50**	36.35	25.12	4.70
10	22.47	36.31	25.10	4.68
19	-	36.31 -	-	4.74
47	22.47	36.32	25.11	4.74
95	20.98	36.33	25.53	4.74
143	20.50	36.64	25.90	4.40
191	22.85*	36.56*	25.18	4.78
290	18.54	36.53	26.32	4.27
386	18.02	36.46	26.40	4.58
585	15.93	36.13	26.65	3.95

** From BT
* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.50	36.35	25.12	4.70
10	22.47	36.31	25.10	4.68
20	22.47	36.31	25.10	4.74
30	22.47	36.31	25.10	4.74
50	22.35	36.32	25.14	4.74
75	21.48	36.33	25.39	4.74
100	20.80	36.34	25.59	4.72
150	20.40	36.63	25.92	4.44
200	19.77	36.61	26.07	4.76
250	19.05	36.56	26.22	4.46
300	18.50	36.53	26.34	4.30
400	17.92	36.44	26.41	4.55
500	16.99	36.30	26.53	4.24

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.2	<0.5	0.0	1.0
10	0.2	0.1	1.5	-	0.7
19	0.5	0.1	1.0	2.4	0.3
47	1.3	0.2	1.0	-	0.3
95	1.6	0.3	0.5	1.9	0.3
143	1.8	0.2	3.0	-	0.4
191	1.1	0.2	0.5	4.9	0.3
290	0.2	0.2	3.0	-	0.1
386	0.4	0.2	2.5	1.1	0.2
585	-	0.7	10.0	0.0	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.2	<0.5	0.0	1.0
10	0.2	0.1	1.5	1.2	0.7
20	0.5	0.1	1.0	2.4	0.3
30	0.8	0.1	1.0	2.3	0.3
50	1.3	0.2	1.0	2.2	0.3
75	1.5	0.3	0.5	2.1	0.3
100	1.6	0.3	0.5	1.9	0.3
150	1.8	0.2	3.0	3.4	0.4
200	1.1	0.2	0.5	4.9	0.3
250	0.6	0.2	0.5	4.9	0.3

STATION Special 6

DATE April 18, 1953 LAT. 29°00'N. LONG. 76°59'W. TIME 11
DEPTH 1079 WIND 5 , 16 BAR. 21 AIR TEMP: dry 21.7°C, wet 15.0°C
HUMIDITY 48% WEATHER 03 CLOUDS: type 8 , amt. 6 SEA: dir. 18 , amt. 2
SWELL: dir. 09 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.40**	36.14	24.40	4.62
10	24.48	36.17	24.40	4.58
20	24.50	36.17	24.40	4.56
49	22.86	-	-	-
98	21.62	36.57	25.54	4.62
149	20.07	36.60	25.98	4.74
197	29.03*	36.61*	23.28	4.34
225	19.12	36.60	26.23	4.31
302	20.90*	36.49*	25.67	4.38
378	17.79	36.45	26.45	4.46
454	17.28	36.36	26.51	3.91
531	16.27	36.22	26.64	3.95
765	11.15	35.42	27.09	3.20

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.40	36.14	24.40	4.62
10	24.48	36.17	24.40	4.58
20	24.50	36.17	24.40	4.56
30	23.86	36.25	24.65	4.56
50	22.84	36.37	25.04	4.57
75	22.23	36.50	25.31	4.58
100	21.34	36.57	25.61	4.62
150	20.05	36.60	25.99	4.74
200	19.44	36.61	26.15	4.33
250	18.90	36.56	26.26	4.33
300	18.43	36.52	26.35	4.38
400	17.69	36.43	26.46	4.34
500	16.72	36.28	26.58	3.93
600	15.08	36.04	26.77	3.80

STATION Special 6

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.2	0.5	-	0.0
10	0.3	0.0	1.0	3.0	1.9
20	-	0.6	0.5	-	1.7
49	-	-	-	-	-
98	0.3	0.3	1.0	1.6	<0.1
149	2.4	<0.1	1.0	-	0.6
197	-	-	-	-	-
225	-	0.2	1.5	-	0.0
302	-	-	-	-	-
378	1.5	0.2	3.5	0.6	0.2
454	1.3	0.5	9.0	-	2.3
531	1.0	0.4	9.0	0.0	1.6
765	1.4	1.4	20.0	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.2	0.5	-	0.0
10	0.3	0.0	1.0	3.0	1.9
20	-	0.6	0.5	2.8	1.7
30	-	0.6	0.5	2.7	1.5
50	-	0.5	0.5	2.4	1.1
75	-	0.4	1.0	2.0	0.5
100	0.4	0.3	1.0	1.6	<0.1
150	2.4	<0.1	1.0	-	0.6
200	-	0.2	1.5	-	0.3
250	-	0.2	2.0	-	0.0
300	-	0.2	3.5	-	0.3
400	1.4	0.3	5.0	0.5	0.8
500	1.1	0.4	9.0	0.1	1.9
600	1.1	0.7	12.0	-	1.4
700	1.3	1.1	17.0	-	1.1

STATION Special 7

DATE April 18, 1953 LAT. 28°00' N. LONG. 77°00' W. TIME 19
DEPTH 1097 WIND 9 , 16 BAR. 21 AIR TEMP: dry 23.3 °C, wet 18.3 °C
HUMIDITY 61 % WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. 16 , amt. 2
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.30**	36.73	25.18	4.74
10	23.49	36.72	25.11	4.74
20	23.35	36.73	25.16	4.74
49	22.38	36.66	25.39	4.58
98	20.94	36.56	25.72	4.66
148	19.64	36.60	26.09	4.34
197	18.81	36.55	26.27	4.34
241	18.41	36.49	26.33	4.42
409	17.39	36.38	26.50	4.23
492	15.81	36.15	26.69	3.95
661	13.02	35.70	26.95	3.18
745	11.06	35.43	27.12	3.16
831	9.08	35.25	27.32	3.16

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.30	36.73	25.18	4.74
10	23.49	36.72	25.11	4.74
20	23.35	36.73	25.16	4.74
30	23.01	36.70	25.24	4.68
50	22.35	36.66	25.40	4.58
75	21.60	36.59	25.56	4.62
100	20.88	36.56	25.73	4.65
150	19.60	36.60	26.11	4.34
200	18.78	36.55	26.28	4.34
250	18.37	36.48	26.33	4.41
300	18.05	36.45	26.39	4.37
400	17.52	36.40	26.48	4.25
500	15.71	36.13	26.70	3.92
600	14.20	35.88	26.84	3.37
800	9.79	35.30	27.24	3.16

STATION Special 7

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.3	5.5	-	0.4
10	0.2	0.2	0.5	-	0.0
20	0.5	0.2	3.5	0.9	0.5
49	-	5.8*	0.5	-	0.1
98	0.3	0.1	0.5	-	0.6
148	1.5	0.4	9.5	0.6	0.5
197	1.3	0.1	1.5	0.4	0.1
241	1.5	0.2	3.0	-	0.1
409	1.5	0.3	-	-	0.3
492	1.4	0.5	4.5	-	0.1
661	-	1.2	-	-	0.5
745	-	1.1	4.5	0.0	2.0
831	2.3	0.1*	11.0	-	0.4

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.3	5.5	-	0.4
10	0.2	0.2	0.5	-	0.0
20	0.5	0.2	3.5	0.9	0.5
30	0.5	-	2.5	0.9	0.4
50	0.4	-	0.5	0.8	0.1
75	0.4	-	0.5	0.8	0.4
100	0.3	0.1	0.5	0.7	0.6
150	1.5	0.4	9.5	0.6	0.5
200	1.3	0.1	1.5	0.4	0.1
250	1.5	0.2	3.0	-	0.1
300	1.5	0.2	3.5	-	0.2
400	1.5	0.3	4.0	-	0.3
500	1.4	0.5	4.5	-	0.1
600	1.7	0.9	4.5	-	0.4
700	2.0	1.1	4.5	0.0	1.2
800	2.3	-	8.5	-	1.0

STATION Special 8

DATE April 19, 1953 LAT. 27°58' N. LONG. 78°00' W. TIME 03
DEPTH 1051 WIND 9 , 16 BAR. 18 AIR TEMP: dry 23.3 °C, wet 20.6 °C
HUMIDITY 78% WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. 16 , amt. 3
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.10**	36.63	25.16	4.74
10	22.91	36.70	25.27	4.74
20	22.92	36.66	25.23	4.74
49	22.83	36.75	25.33	4.74
98	21.94	36.67	25.52	4.84
147	21.47	36.67	25.65	4.42
196	19.40	36.65	26.20	4.31
293	18.14	36.50	26.40	4.31
490	15.79	36.17	26.71	3.95
589	14.04	35.82	26.83	3.71
788	8.47	35.16	27.35	3.28
887	6.73	35.04	27.51	3.95
986	4.77	35.07	27.78	4.46

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.10	36.63	25.16	4.74
10	22.91	36.70	25.27	4.74
20	22.92	36.66	25.23	4.74
30	22.90	36.70	25.27	4.74
50	22.81	36.75	25.33	4.74
75	22.31	36.70	25.44	4.80
100	21.92	36.67	25.53	4.83
150	21.32	36.67	25.69	4.40
200	19.35	36.64	26.20	4.31
250	18.69	36.57	26.32	4.31
300	18.08	36.50	26.42	4.30
400	17.05	36.38	26.58	4.15
500	15.64	36.13	26.72	3.92
600	13.66	35.77	26.87	3.68
800	8.27	35.14	27.36	3.30

STATION Special 8

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	0.4	0.5	-	0.5
10	0.2	0.0	0.5	-	0.0
20	0.3	0.0	0.5	0.9	0.3
49	0.3	0.2	-	0.6	1.0
98	0.4	0.4	1.5	0.0	0.5
147	-	0.7	6.5	-	0.5
196	1.2	0.1	2.5	0.8	0.7
293	0.5	0.4	3.0	-	0.9
490	0.6	0.4	2.5	2.3	0.8
589	-	1.0	5.5	-	0.2
788	-	1.4	6.0	-	1.9
887	-	1.7	20.5	2.0	0.0
986	-	1.5	4.0	-	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	0.4	0.5	-	0.5
10	0.2	0.0	0.5	-	0.0
20	0.3	0.0	0.5	0.9	0.3
30	0.3	0.1	0.5	0.8	0.5
50	0.3	0.2	1.0	0.6	1.0
75	0.4	0.3	1.5	0.3	0.8
100	0.4	0.4	1.5	<0.1	0.5
150	0.7	0.7	6.5	0.4	0.5
200	1.2	0.1	2.5	0.8	0.7
250	0.8	0.3	2.5	1.1	0.8
300	0.5	0.4	3.0	1.3	0.9
400	0.6	0.4	2.5	1.8	0.8
500	0.6	0.4	2.5	2.3	0.8
600	-	1.0	5.5	2.2	0.3
700	-	1.2	6.0	2.1	1.1
800	-	1.4	8.0	2.1	1.7
1000	-	1.5	4.0	-	0.5

STATION Special 9

DATE April 24, 1953 LAT. 28°00'N. LONG. 79°01'W. TIME 04
DEPTH 732 WIND 4 , 09 BAR. 17 AIR TEMP: dry 21.7°C, wet 17.8°C
HUMIDITY 68% WEATHER 02 CLOUDS: type - , amt. 2 SEA: dir. 09 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.80**	36.42	24.80	4.57
10	23.59	36.42	24.86	4.61
20	23.23	36.45	24.99	4.74
49	23.05	36.69	25.22	4.66
98	22.62	36.73	25.37	4.76
147	21.19	36.64*	25.71	4.74
196	19.57	36.68	26.17	4.42
395	17.34	36.40	26.52	4.07
493	15.48	36.14	26.76	3.87
692	10.59	35.39	27.17	3.04

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.80	36.42	24.80	4.57
10	23.59	36.42	24.86	4.61
20	23.23	36.45	24.99	4.74
30	23.17	36.55	25.08	4.72
50	23.05	36.69	25.22	4.66
75	22.95	36.73	25.28	4.71
100	22.57	36.73	25.39	4.76
150	21.08	36.72	25.80	4.71
200	19.55	36.68	26.18	4.41
250	19.17	36.64	26.25	4.33
300	18.66	36.58	26.33	4.24
400	17.25	36.39	26.54	4.05
500	15.33	36.12	26.78	3.85
600	13.04	35.77	27.00	3.45

STATION Special 9

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.3	-	-	0.3
10	-	0.3	0.0	-	0.6
20	0.0	0.0	0.5	3.0	0.0
49	0.0	0.0	0.5	1.9	0.3
98	-	0.5	3.0	-	0.3
147	-	0.3	0.5	-	0.2
196	0.1	0.1	1.0	-	1.1
395	-	0.3	-	-	< 0.1
493	2.1	0.8	5.5	1.5	0.3
692	-	1.5	5.5	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.3	-	-	0.3
10	-	0.3	0.0	-	0.6
20	0.0	0.0	0.5	3.0	0.0
30	0.0	0.0	0.5	2.6	0.1
50	0.0	0.0	0.5	1.9	0.3
75	-	0.3	2.0	-	0.3
100	-	0.5	3.0	-	0.3
150	-	0.3	0.5	-	0.2
200	0.1	0.1	1.0	-	1.1
250	0.4	0.2	-	-	0.8
300	0.8	0.2	-	-	0.5
400	1.5	0.3	-	-	< 0.1
500	2.1	0.8	5.5	1.5	0.3
600	-	1.2	5.5	-	0.3
700	-	1.5	5.5	-	0.3

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